National Energy Board

Reasons for Decision

Interprovincial Pipe Line Inc.

OH-2-97

December 1997

Facilities and Toll Methodology

National Energy Board

Reasons for Decision

In the Matter of

Interprovincial Pipe Line Inc.

Application dated 1 May 1997 for the Line 9 Reversal Project and an application dated 17 July 1997 by United Refining Company for designation of a priority destination on Interprovincial Pipe Line Inc.

OH-2-97

December 1997

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Abbreviations

Act	*National Energy Board Act*
ADOE and Producers	Alberta Department of Energy, the Small Explorers and Producers Association of Canada, Gulf Canada Resources Limited, Talisman Energy Inc. and Renaissance Energy Inc.
Amoco	Amoco Canada Petroleum Company Ltd.
bbl	barrel
b/d	barrels per day
Board	National Energy Board
CAPP	Canadian Association of Petroleum Producers
CCA	capital cost allowance
CEAA	*Canadian Environmental Assessment Act*
CRA	CAPP/Refiner Agreement
crude oil	crude oil and equivalent
CSA	Canadian Standards Association
DRA	drag-reducing agent
EPN	Early Public Notification
ERP	Emergency Response Plan
Express Decision	Express Pipeline Ltd., Application for Facilities and Tolls, Reasons for Decision dated June 1996
FMV	fair market value
FSA	Facilities Support Agreement
ICC	Illinois Commerce Commission
ILI	in-line inspection
Imperial	Imperial Oil
IPL	Interprovincial Pipe Line Inc.

IPL Line 8 Decision	Interprovincial Pipe Line Inc., OH-4-96, Application for the construction of facilities and reactivation of existing facilities, Reasons for Decision dated April 1997.
IPL NGL Injection Facilities	Interprovincial Pipe Line Company, a division of Interhome Energy Inc., GHW-5-90 and RH-3-90, Application for facilities to accumulate and inject natural gas liquids and for the toll design applicable thereto and an application by the prospective shippers regarding conditions of access to the applied-for facilities, Reasons for Decision dated February 1991.
ITS	Incentive Toll Settlement
km	kilometre(s)
kPa	kilopascal
Lakehead	Lakehead Pipe Line Company, Inc.
m^3	cubic metre
m^3/d	cubic metres per day
MH-3-85 Decision	Interprovincial Pipe Line Limited, Public Inquiry into matters relating to the apportionment of pipeline space, Reasons for Decision dated July 1985.
mm	millimetre
Mobil	Mobil Oil Canada
Montreal Pipe Line	Montreal Pipe Line Limited
MOP	maximum operating pressure
MSDS	material safety data sheets
MSW	Sweet Mixed Blend crude oil
Multi-Pipeline Decision	Multi-pipeline hearing in respect of cost of capital, RH-2-94, Reasons for Decision dated March 1995.
NBV	net book value
NGL	natural gas liquids
NOVA Chemicals	NOVA Chemicals (Canada) Ltd.
NRA	non-routine adjustments

OD	outside diameter
OPLA	Ontario Pipeline Landowners Association
Other Producers	Alberta Energy Company Ltd., Anderson Exploration, Canadian Natural Resources Limited, CANPET Energy Group Inc., Husky Oil Operations Ltd., Northstar Energy Corporation, Poco Petroleums Ltd., and Rigel Oil and Gas Ltd.
PADD	Petroleum Administration for Defense Districts
PanCanadian NGL Access Decision	PanCanadian Petroleum Limited, MH-4-96, Application for an order requiring Interprovincial Pipe Line Inc. to transport natural gas liquids, Reasons for Decision dated February 1997.
PCA	Preliminary Cost Agreement
Portland Pipe Line	Portland Pipe Line Corporation
Portland-Montreal	Portland Pipe Line Corporation and Montreal Pipe Line Limited
Purvin & Gertz	Purvin & Gertz, Inc.
Quebec	le Procureur général du Québec
Refiners	Imperial Oil, Petro-Canada, Shell Canada Limited and NOVA Chemicals (Canada) Ltd.
RH-2-91	Interprovincial Pipe Line Inc., Application for tolls, Reasons for Decision dated June 1992.
RH-3-83	Interprovincial Pipe Line Limited, Application for tolls, Reasons for Decision dated June 1987.
SCADA	supervisory control and data acquisition
SCC	stress corrosion cracking
SCC Inquiry Report	*Report of the Inquiry Concerning Stress Corrosion Cracking on Canadian Oil and Gas Pipelines*, MH-2-95, Report dated November 1996.
SEP	IPL's System Expansion Program
SEPAC	Small Explorers and Producers Association of Canada
Shell	Shell Canada Limited
Suncor	Suncor Energy

Sunoco	Sunoco Inc.
Trans Mountain	Trans Mountain Pipe Line Company Ltd.
UCC	undepreciated capital cost
United	United Refining Company
Unocal	Unocal Pipeline Company
U.S.	United States of America
US$	American dollars
WTI	West Texas Intermediate crude oil
Z662	CSA standard, *Oil and Gas Pipeline Systems*

Definitions

Apportionment	The method of allocating the difference between the total nominated volume and the available pipeline operating capacity, where the latter is smaller.
Barrel	1 barrel is approximately equal to 0.159 m^3.
Brent crude oil	A grade of light, sweet crude oil produced in the North Sea which is the benchmark grade of oil for Atlantic Basin price quotations.
CAPP/Refiner Agreement	An agreement dated 6 February 1997, entitled Updated Statement of Principles, wherein CAPP, Imperial, Petro-Canada, Shell, NOVA Chemicals and Sunoco Inc. undertook to support an application by IPL to the Board for consent to the reversal of Line 9, and for tolling matters related to the reversal.
Condensate	A mixture of hydrocarbons comprised mainly of pentanes and heavier hydrocarbons recovered as liquid from field separations, scrubbers or other gathering facilities or at the inlet of a natural gas processing plant.
Crude oil and equivalent	A collective term used to refer to all grades of crude oil, including conventional light and heavy crude oil, synthetic crude oil, pentanes, and heavier hydrocarbons and bitumen.
Extended Term	Years six through eight after reversal.
Incentive Toll Settlement	In 1995, an incentive toll settlement resulted from negotiations between CAPP and IPL. The toll settlement was found to comply with the Board's *Guidelines for Negotiated Settlements of Traffic, Tolls and Tariffs*, dated 23 August 1994, and was approved by the Board under Order TO-1-95.
Interim toll	During the Primary Term, the initial charges to ship crude oil and equivalent on the reversed Line 9.
Line 9A	The portion of Line 9 extending from Sarnia, Ontario to North Westover, Ontario.
Line 9B	The portion of Line 9 extending from North Westover, Ontario to Montreal, Quebec.
Line 9C	A proposed 9.8 kilometre (6 mile), 508 millimetre (20 inch) outside diameter pipeline extending from IPL's Sarnia Terminal to the refinery take-offs for NOVA Chemicals and Shell.

Line 9 Deficiency Amount	An amount negotiated in the CAPP/Refiner Agreement of $10 million plus interest calculated from 26 July 1996 to the reversal date.
Line 9 Reversal Project	The proposal by IPL to reverse the direction of flow in Line 9 between Montreal, Quebec and Sarnia, Ontario.
Line 14	A pipeline proposed by Lakehead which would be located between Superior, Wisconsin and the Chicago, Illinois area.
Montreal Extension	The part of IPL's system extending from Sarnia, Ontario to Montreal, Quebec that was constructed pursuant to Certificate of Public Convenience and Necessity OC-30, dated 21 May 1975.
MSW	A mixed blend of Canadian light sweet crude oil.
Natural gas liquids	A mixture of hydrocarbons comprised of ethane, propane, butanes, pentanes plus and small quantities of non-hydrocarbons.
Older System	That portion of IPL's system excluding Line 9 and Line 8.
Original Shippers	Imperial, Petro-Canada, Shell, NOVA Chemicals and any person who becomes party to the Facilities Support Agreement.
Prebuild Carrying Costs	Carrying costs associated with any prebuild investment as calculated by IPL using the cost of service methodology.
Primary Term	Years one through five after reversal.
Trigger Mechanism	The market conditions necessary for CAPP, Imperial, Petro-Canada, Shell, NOVA Chemicals and Sunoco to support an application for the reversal of Line 9. This required that the estimated landed price of Brent crude oil delivered to Sarnia, Ontario via the Portland-Montreal system and Line 9 be lower than the landed price of light sweet Canadian crude oil delivered to Sarnia for any five of seven consecutive months.
WTI	West Texas Intermediate - a light sweet crude oil, produced in the United States, which is the benchmark grade of crude oil for North American price quotations.

Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* ("Act") and the regulations made thereunder;

IN THE MATTER OF an application dated 1 May 1997, by Interprovincial Pipe Line Inc., for an order pursuant to section 58 of the Act authorizing construction of facilities; orders pursuant to Part IV and sections 19 and 21 of the Act approving a tolling methodology for the transportation of crude oil in Line 9; and various orders relating to the implementation of the reversal of Line 9; and

IN THE MATTER OF the National Energy Board Hearing Order OH-2-97.

HEARD at Calgary, Alberta, 5-8 August 1997; London, Ontario, 11-13 August 1997; and Calgary, 19 August to 10 September 1997.

BEFORE:

R. Priddle	Presiding Member
J.A. Snider	Member
R. Revel	Member

APPEARANCES:

C.K. Yates W.M. Moreland R.A. Neufeld	Interprovincial Pipe Line Inc.
N.J. Schultz L.L. Manning	Canadian Association of Petroleum Producers
M. Vance S. O'Neil	Ontario Pipeline Landowners Association
K.F. Miller	Small Explorers and Producers Association of Canada, the Alberta Department of Energy, Alberta Energy Company Ltd., Anderson Exploration, Canadian Natural Resources Limited, CANPET Energy Group Inc., Gulf Canada Resources Limited, Husky Oil Operations Ltd., Northstar Energy Corporation, Poco Petroleums Ltd., Renaissance Energy Ltd., Rigel Oil & Gas Ltd. and Talisman Energy Inc.
D.A. Holgate	Amoco Canada Petroleum Company Ltd. and Mobil Oil Canada
M. Bonli	Crestar Energy
D.G. Davies H.R. Huber	Imperial Oil, NOVA Chemicals (Canada) Ltd., Petro-Canada and Shell Canada Limited

P. Kahler P.A. McCunn-Miller	PanCanadian Petroleum Limited
S.R. Miller	Petro-Canada
L.G. Keough S. Munro	Suncor Energy
J. Watson	TransCanada Energy Limited and TransCanada PipeLines Limited
J.L. Fingarson	Trans Mountain Pipe Line Company Ltd.
A.S. Hollingworth D. Wood	United Refining Company
H.R. Hansford	Unocal Pipeline Company
J.D. Coop J.C. Turchin	Minister of Environment and Energy for Ontario
J. Brisson F. Nguyen	Procureur général du Québec
M.A. Fowke G. Grondin	Board Counsel

Overview

(Note: This summary is provided for the convenience of the reader and does not constitute part of these Reasons for Decision, to which readers are referred for details.)

Interprovincial Pipe Line Inc. ("IPL") filed an application dated 1 May 1997 with the National Energy Board ("Board") for the approval of facilities and a tolling methodology in order to reverse the direction of flow of crude oil in Line 9 between Montreal, Quebec and Sarnia, Ontario ("Line 9 Reversal Project"). IPL and four refiners developed the Line 9 Reversal Project in order that crude oil imported into Canada through the facilities of Portland Pipe Line Corporation and Montreal Pipe Line Limited could be transported in Line 9 in an east-to-west direction from Montreal to major refining centres in Ontario. The capacity of the reversed Line 9 would be 38 160 cubic metres per day (240,000 barrels per day).

In a letter dated 17 July 1997, United Refining Company ("United") requested that, pursuant to section 59 of the Act, the Board designate Chippawa, Ontario as a priority destination on IPL's Line 10 during periods when Line 7 is in apportionment.

The hearing was convened at Calgary, Alberta, 5-8 August 1997; London, Ontario, 11-13 August 1997; and Calgary, 19 August to 10 September 1997.

Decisions

The Board approves IPL's application for the construction of facilities for the Line 9 Reversal Project. The Board has considered the Environmental Screening Report and the comments received on the Report and is of the view that, taking into account the implementation of the proposed mitigative measures and the conditions set out in the Report, the construction of the Line 9 Reversal Project facilities is not likely to cause significant adverse environmental effects. This represents a decision pursuant to paragraph 20(1)(a) of the *Canadian Environmental Assessment Act*.

Accordingly, the Board has issued Order XO-J1-34-97, as included in Appendix II of these Reasons for Decision.

IPL submitted that the CAPP/Refiner Agreement ("CRA") and subsequent agreements put before the Board during the proceedings are an important change of circumstance since the RH-2-91 Decision. The Board is of the view that this change in circumstances was significant and warranted an examination of the negotiated agreements. This could be best accomplished by an examination of the application on its own merits based on the negotiated agreements.

IPL proposed that, during the first five years following reversal, an interim toll of $3.195 per cubic metre ($0.508 per barrel) would apply for service from Montreal to Sarnia. The interim toll would be the final toll for interruptible shippers. However, at the end of each year, any difference between the interim toll revenue and IPL's actual revenue requirement would be shared between the contract shippers and shippers on IPL's Older System, in accordance with the CRA. IPL also proposed that the Line 9 tolls would be charged on a stand-alone basis during years six through eight following reversal. The Board has approved the toll methodology proposed by IPL and the associated Non-Routine Adjustments to the Older System Incentive Toll Settlement.

Negotiations between IPL, Imperial Oil, Petro-Canada, Shell Canada Limited, NOVA Chemicals (Canada) Ltd. (together the "Refiners"), and Sunoco Inc. culminated in the signing of the Facilities Support Agreement whereby the Refiners contracted for 100 percent of available capacity on reversed Line 9. IPL and the Refiners submitted that IPL was meeting its common carrier obligations as all parties were given an equal opportunity to take part in these negotiations and contract for long-term access to the reversed Line 9. This position was challenged by Suncor Energy, representing Sunoco Inc.'s interests during the hearing, on the basis that IPL's open season process was neither fair nor reasonable.

In order for IPL to meet its common carrier obligations under the *National Energy Board Act*, the Board is requiring IPL to keep available for nominations on a monthly basis, 20 percent of the capacity available for the transportation of crude oil on the reversed Line 9.

United applied to have Chippawa, Ontario designated as a priority destination while Line 9 is operating in reversed mode in order to ensure sufficient supply for its refinery at Warren, Pennsylvania. United expressed concern that the redesign of IPL's Line 7 and Line 9 did not leave sufficient capacity on Line 7 to accommodate the continued sourcing of United's supply from western Canada. It submitted that apportionment on Line 7 would cause it significant harm and was not content with the "wait and see" approach supported by IPL.

The Board, while recognizing the unique circumstances of United and the potential for significant harm to its operations in the event of apportionment on Line 7, is not prepared to approve United's application at this time. It does, though, encourage United to bring this matter forward if apportionment on Line 7 occurs and United is unable to negotiate a satisfactory solution.

Chapter 1

Introduction

1.1 Interprovincial Pipe Line Inc. Application

On 1 May 1997, Interprovincial Pipe Line Inc. ("IPL") applied to the National Energy Board ("Board"):

(a) pursuant to section 58 of the *National Energy Board Act*[1] ("Act"), for an order authorizing construction of certain facilities;

(b) pursuant to Part IV of the Act, for an order approving the tolling methodology set forth in the application;

(c) pursuant to section 21 of the Act, for a variance of that portion of the RH-2-91 Decision[2] that relates to tolling on the Montreal Extension to allow for partially-integrated tolling in the five-year transition period post-reversal;

(d) pursuant to subsection 19(2) of the Act, for an order making the Line 9 tolls of IPL interim on an annual basis to allow for tolls to be charged and adjusted in accordance with the interim toll and Facilities Support Agreement ("FSA"), as filed in the application; and

(e) for approval of Non-Routine Adjustments ("NRA") to the Older System tolls per the Incentive Toll Settlement ("ITS"), dated 16 February 1995[3].

The application proposed to reverse the direction of flow of crude oil in IPL's Line 9 between Montreal, Quebec and Sarnia, Ontario ("Line 9 Reversal Project"). IPL and five refiners developed the Line 9 Reversal Project in order that crude oil imported into Canada through the facilities of Portland Pipe Line Corporation ("Portland Pipe Line") and Montreal Pipe Line Limited ("Montreal Pipe Line") (together "Portland-Montreal") could be transported in Line 9 in an east-to-west direction from Montreal to major refining centres in Ontario. The capacity of the reversed Line 9 would be 38 160 cubic metres per day ("m^3/d") (240,000 barrels per day ("b/d")).

Line 9 comprises 832 kilometres (517 miles) of 762 millimetre (30 inch) outside diameter ("OD") pipeline extending from IPL's Sarnia Terminal to the Montreal Terminal. The facilities required to implement the project include one new mainline pump station, booster pump facilities, pipeline facilities, tankage and other related facilities on Line 9. In addition, the west-to-east capacity of IPL's Line 7 would be increased by the addition of a mainline pump at the Sarnia Terminal and the

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[1] R.S.C. 1985, c.N-7.

[2] Interprovincial Pipe Line Inc., RH-2-91, Application for tolls, Reasons for Decision dated June 1992.

[3] In 1995 an incentive toll settlement resulted from negotiations between CAPP and IPL. The settlement was found to comply with the Board's *Guidelines for Negotiated Settlements of Traffic, Tolls and Tariffs* dated 23 August 1994 and was approved by the Board under Order TO-1-95.

reactivation of two pump stations (Keyser Station and Bryanston Station). The project, at an estimated cost of $88.7 million, was originally scheduled for completion by 1 April 1998. In the course of the proceeding, though, the completion date was revised to 1 July 1998.

The design and operation of the applied-for facilities are described in Chapter 3. Environmental, public safety and other public interest issues are addressed in Chapters 4 and 5. Economic, tariff and financial issues are addressed in Chapters 6, 7 and 8.

1.2 United Refining Company Application

In a letter dated 17 July 1997, United Refining Company ("United") requested that, pursuant to section 59 of the Act, the Board designate Chippawa, Ontario as a priority destination on IPL's Line 10 during periods when Line 7 is in apportionment.

United operates a 10 300 m^3/d (65,000 b/d) refinery that is located in Warren, Pennsylvania. At the time of the application, United received 10 200 m^3/d (64,000 b/d) of Canadian crude oil imported via IPL's Line 10 and the Kiantone Pipeline. The issues related to United's application are discussed in Chapter 10.

Chapter 2

Background

2.1 Line 9 History

In 1973, Arab oil exporting countries imposed an embargo on deliveries of crude oil to some Western countries and threatened to progressively cut production which could have reduced the supply of crude oil to refineries in Atlantic Canada and Quebec. Montreal refineries at that time were dependent upon overseas crude oil delivered either directly by vessel or via the Portland-Montreal system. Only limited volumes of crude oil produced in western Canada could be delivered to Atlantic and Quebec refineries. This was accomplished by shipping crude oil either through the Trans Mountain Pipe Line Company Ltd. ("Trans Mountain") pipeline system to Vancouver, British Columbia and loading vessels which would transit the Panama Canal, or seasonally by tanker from Ontario ports down the St. Lawrence Seaway to Montreal.

At that time, the IPL pipeline system extended from Edmonton, Alberta to the Toronto, Ontario area and delivered Canadian crude oil to both United States ("U.S.") and Canadian refineries. As a result of the embargo, the vulnerability of the refineries in Atlantic Canada and Quebec became of greater concern to the Government of Canada. IPL was therefore asked to consider an extension of its system to serve Montreal refineries and to permit Quebec City and Atlantic refiners, if circumstances warranted, to use existing dock facilities in Montreal to load vessels with Canadian crude oil for delivery further east.

To enhance security of supply for consumers in eastern Canada, the Government of Canada entered into an agreement with IPL to support the construction of a Sarnia to Montreal pipeline ("Montreal Extension") by guaranteeing to meet any financial loss which might result from low throughputs. This agreement, dated 8 April 1975, referred to as the Deficiency Agreement, had a term of 20 years from the date when leave to open the Montreal Extension was granted by the Board. Canada and IPL also entered into an Option Agreement, dated 25 February 1977, which provided an option to Canada to purchase the Montreal Extension.

The Montreal Extension, which is now known as Line 9, was opened on 4 June 1976 and had a throughput capacity slightly in excess of 50 000 m^3/d (315,000 b/d).

2.1.1 Release Agreement

On 4 June 1996, IPL announced that it had reached agreement ("Release Agreement") with Canada in respect to future ownership of Line 9. The effect of the Release Agreement was that Canada and IPL were released from their rights and obligations under the Deficiency Agreement and the Option Agreement, which were both terminated on 2 June 1996, and that IPL would continue to own and operate Line 9.

2.2 Montreal Extension Toll Design

2.2.1 1976 - 1992

In RH-2-76[4], the Board outlined a methodology for the calculation of tolls in respect of the Montreal Extension. The Board set out two methods of calculation - an "integrated" method and a "two-part" method - and developed a test to determine which method would be appropriate for a given year. The method that would apply in any given test year would be that which would result in lower tolls for the Older System.

Until 1984, the tolls for the Montreal Extension were calculated using the two-part method of toll design. In its RH-3-83 Decision[5], the Board directed IPL to use an integrated toll design, on the basis that shippers on the Older System would pay lower tolls and that tolls would be more stable.

In RH-4-86[6], the Board found that the two-part versus integrated test should be discontinued. Although the Board accepted the use of integrated tolls for 1987, it indicated that, given its views on toll design principles and objectives, it was not convinced that the integrated approach was necessarily the appropriate toll design for the Montreal Extension and that this issue would be examined at IPL's next toll hearing.

In response to a request from the Minister of Energy, Mines and Resources dated January 1991, the Board conducted an inquiry into various aspects of a planned cessation of operation of the Montreal Extension and in April 1991 issued a report entitled "The Sarnia-Montreal Pipeline - A Review and Report by the National Energy Board". In that report, the Board noted that the next toll hearing would include an examination of toll design.

2.2.2 RH-2-91

As part of its 27 June 1991 application pursuant to Part IV of the Act, IPL requested that the Board consider the appropriate toll design related to the possible reversal of the Montreal Extension. The Montreal Extension was idle at the time of the application and IPL had forecasted no throughputs for the 1992 test year. In order to determine the appropriate toll design for the reversed Montreal Extension, the Board considered whether the toll design should be stand-alone, integrated or a combination of the two methodologies.

In the event that the Montreal Extension would be reversed, IPL proposed that the existing facilities be tolled on an integrated basis with the Older System and that there be a surcharge for the facilities which would be built to effect the reversal. Under IPL's hybrid approach for toll design, all shippers using the Montreal Extension would make equal contributions to the existing rate base and east-to-west shippers would pay a surcharge for facilities which would be used exclusively in the reversed mode.

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[4] Interprovincial Pipe Line Limited, RH-2-76, Hearing respecting tariffs and tolls, Reasons for Decision dated December 1976.

[5] Interprovincial Pipe Line Limited, RH-3-83, Application for tolls, Reasons for Decision dated February 1984.

[6] Interprovincial Pipe Line Limited, RH-4-86, Application for tolls, Reasons for Decision dated June 1987.

With respect to the toll design principles of "cost-based tolls" and "no unjust discrimination", IPL stated that its proposed toll design would be cost-based because tolls would be based on the actual embedded costs of the Montreal Extension and the future costs of the facilities required for the reversal.

In determining which toll methodology would be more appropriate for the reversed Montreal Extension, the Board relied on the toll principles established in RH-4-86. In particular, the Board, having regard to the principle of cost-based, user-pay tolls, considered the physical and operational integration of the Montreal Extension and the Older System, and the extent to which service on a reversed Montreal Extension would be different from service on the Older System.

Physical Integration

The Board was of the view that, on balance, the reversed Montreal Extension should not be considered physically integrated with the Older System because it would be possible to use the Older System and the reversed Montreal Extension separately, with an identifiable (although not necessarily unique) group of customers for each system. On the basis of the limited degree of physical integration, stand-alone tolls should be implemented in order to respect the principle of cost-based, user-pay tolls.

Operational Integration

The Board believed that, if the Montreal Extension were reversed, any operational integration that occurred between the Older System and the Montreal Extension would occur primarily as a result of joint ownership, and secondarily as a result of the need to coordinate the activities of some parts of the systems.

Although some form of integrated tolls might have been more convenient for IPL, the Board did not believe that IPL's operations would be unduly restricted by stand-alone tolls. Further, since costs were already allocated separately to the Montreal Extension, stand-alone tolls should not have prevented IPL from continuing its current approach to operations.

Nature of the Service

The Board agreed that reversing the Montreal Extension could be viewed as a new service and, as a result, the Board drew two conclusions. First, stand-alone tolls would be more appropriate for the reversed Montreal Extension in order to respect the principle of cost-based, user-pay tolls because the users of the new service should bear the financial responsibility for the service. Second, provided all shippers on the reversed Montreal Extension were subject to the same toll structure, the principle of no unjust discrimination would be respected.

In conclusion, the Board was of the view that stand-alone tolls would best satisfy the principle of cost-based, user-pay tolls, would promote economic efficiency, would be fair to all shippers and would not be difficult to implement or administer. The Board further decided that these tolls should be calculated on the basis of the costs of the existing Montreal Extension facilities, plus the costs associated with facilities built to effect the reversal of the line.

2.3 Application for Reversal of Line 9

As part of its application for the reversal of Line 9, IPL sought orders approving its proposed tolling methodology. This methodology embodies changes over three distinct time periods:

- post-purge, pre-reversal;
- the first five years of the term of the FSA post-reversal ("Primary Term"); and
- the last three years of the term of the FSA post-reversal ("Extended Term").

It was proposed that Line 9 post-purge, pre-reversal tolls be charged on an integrated basis. In the Primary Term, tolls on Line 9 would be charged on a stand-alone basis with some aspects of integration with the Older System. In the Extended Term, tolls would be charged on a stand-alone basis.

IPL noted that the proposed toll methodology was being advanced as the product of negotiations among three parties: IPL; the Canadian Association of Petroleum Producers ("CAPP"); and a group of companies including Imperial Oil ("Imperial"), Petro-Canada, Shell Canada Limited ("Shell") and NOVA Chemicals (Canada) Ltd. ("NOVA Chemicals") (together "Refiners"). IPL was of the view that changed circumstances and new facts since 1992 justifies the variance of the Board's decision in RH-2-91 to facilitate implementation of the project by allowing for partially integrated tolling during the Primary Term.

IPL noted that the financial commitments of the Refiners contained in the FSA are conditional on approval by the Board of the applied-for toll methodology. IPL would only proceed with construction of the requisite facilities so long as the Refiners continue to support the project.

2.4 Preliminary Cost Agreement

The process of developing a facilities support agreement began in 1995 and involved IPL, the Refiners and Sunoco Inc. ("Sunoco")[7]. A series of letter agreements ensued. By letter dated 23 January 1997 IPL issued a final letter agreement, or Preliminary Cost Agreement ("PCA"), to the Refiners and Sunoco respecting costs incurred by IPL in connection with the reversal of Line 9 prior to the Effective Date[8]. The purpose of the PCA was to set out the terms and conditions respecting the preparation of tolling and facilities applications, the design of the reversal facilities, the ordering of long-lead time items and work done in conducting an integrity assessment of the existing facilities.

Within the PCA, it was stated that IPL, the Refiners and Sunoco would negotiate and execute a mutually acceptable agreement (a facilities support agreement) respecting the long-term utilization of the reversal facilities by the five shippers. It was further stated that, until such time that an FSA was executed, IPL was under no obligation to file a facilities application with the Board.

Included in the PCA were rules concerning the financial liability of the various parties to the agreement in the event a party withdrew from the negotiations of the FSA. If IPL withdrew, then the Refiners and Sunoco would not be liable to IPL for the repayment of any reimbursable costs. If a

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[7] The interests of Sunoco were represented during the OH-2-97 proceeding by Suncor Energy ("Suncor").

[8] The Effective Date is the date upon which the FSA becomes fully executed.

shipper withdrew, it would then be liable to pay to IPL an amount equal to that proportion of the reimbursable costs provided for in the PCA. The Refiners and Sunoco's proportionate shares of such liabilities were as follows:

Imperial	42%
Petro-Canada	23%
Shell	15%
NOVA Chemicals	10%
Sunoco	10%

The PCA was superceded by the FSA and terminated on 1 April 1997.

2.4.1 Sunoco's Withdrawal from the Refiner Group

Originally, the group of refiners that backstopped IPL's reversal project consisted of Imperial, Petro-Canada, Shell, NOVA Chemicals and Sunoco. However, in the application, Sunoco is not one of the refiners backstopping the proposal.

By early 1997, IPL was backstopped, pursuant to the terms of the PCA, for approximately $13.7 million, for which Sunoco was 10 percent liable. Escalating financial liabilities as well as Sunoco's view that there was considerable uncertainty surrounding the regulatory treatment that would be accorded the project led Sunoco, in March 1997, to withdraw from the project until a Board decision was known.

2.5 CAPP/Refiner Agreement

The concept of reversing Line 9 had existed well before IPL filed its application in May 1997. CAPP, the Refiners and Sunoco began negotiations in mid-1995 and an agreement, effective 1 January 1996, was reached by year-end. Conditions were agreed upon under which they would support an application to the Board for reversal of Line 9. The conditions agreed upon included, *inter alia*, that:

- Reversal would occur after the landed price of Canadian crude oil delivered to Sarnia was higher than the estimated landed price of Brent crude oil delivered to Sarnia via the Portland-Montreal system and Line 9 for any five of seven consecutive months (this condition was referred to as the "Trigger Mechanism"); and

- The application would include a tariff designed to share the risk of revenue excesses[9] and shortfalls[10] on a reversed Line 9 between the Refiners and the shippers on the Older System.

A year following the agreement by CAPP, the Refiners and Sunoco, it was agreed that the Trigger Mechanism had been met and an Updated Statement of Principles (the CAPP/Refiner Agreement or "CRA"), dated 6 February 1997 was entered into. The Refiners and Sunoco then undertook to support

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[9] The amount, if any, by which the annual revenue from initial charges collected from Line 9 shippers exceeds the Line 9 revenue requirement.

[10] The amount, if any, by which the annual revenue from initial charges collected from Line 9 shippers is less than the Line 9 revenue requirement.

an application by IPL to the Board for the facilities and for tolling matters related to the Line 9 reversal.

One of the key components of the CRA is the sharing of the risks and revenues of the reversal between the Line 9 shippers and Older System shippers. During the first sixty months after the reversal, the initial tolls to ship crude oil and equivalent on reversed Line 9 would be subject to the following adjustments:

- During the first 36 months, any revenue excess over the Line 9 annual revenue requirement equal to or less than $12.5 million would be used to reduce Older System tolls. Where the annual revenue excess exceeds $12.5 million, 50 percent of that amount that exceeds $12.5 million would be used to reduce Older System tolls, and the remaining 50 percent would be Refiner benefits. Any annual revenue shortfall equal to or less than $12.5 million would be recovered from Older System tolls, while any annual revenue shortfall exceeding $12.5 million, that portion in excess of $12.5 million would be Refiner costs.

- During months 37 through 48, any revenue excess over the Line 9 annual revenue requirement equal to or less than $8.0 million would be used to reduce Older System tolls. Where the revenue excess is greater than $8.0 million, that portion in excess of $8.0 million would be Refiner benefits. Any revenue shortfall equal to or less than $8.0 million would be recovered from Older System tolls, while any revenue shortfall exceeding $8.0 million would be Refiner costs.

- During months 49 through 60, any revenue excess over the Line 9 annual revenue requirement equal to or less than $4.0 million would be used to reduce Older System tolls. Where the revenue excess is greater than $4.0 million, that portion in excess of $4.0 million would be Refiner benefits. Any revenue shortfall equal to or less than $4.0 million would be recovered from Older System tolls, while any revenue shortfall exceeding $4.0 million would be Refiner costs.

The termination of the CRA can occur on two dates. If the Line 9 reversal occurs prior to 31 December 2001, the CRA would terminate 60 months after the reversal date. If the reversal has not occurred prior to 31 December 2001, the CRA would terminate effective 31 December 2001.

2.6 The Facilities Support Agreement

IPL has proposed to design and construct the Line 9 Reversal Project on the basis of the crude oil volumes forecast to be delivered to IPL by the Refiners and to provide them with unapportioned access to a reversed Line 9 (not including any expansion capacities) for the transportation of crude petroleum. In return, the Refiners have undertaken to support certain financial aspects of the design, construction and operation of the facilities. The positions of both parties are subject to the terms and conditions set out in the FSA, an agreement between IPL and the Refiners. The key points of this agreement are discussed in the following sections.

2.6.1 Term

The date this Agreement takes effect is referred to as the Effective Date. The date of the first day of the month following the month in which the first deliveries of crude petroleum shipped on Reversed Line 9 are made to a shipper is referred to as the Commencement Date. Unless terminated in accordance with the provisions therein, the FSA will be in effect until the end of the Primary Term (the fifth anniversary of the Commencement Date). On that day the Extended Term of the FSA will commence, ending on the day immediately preceding the eighth anniversary of the Commencement Date.

2.6.2 Final Construction Notice

In the event the Board's decision permits the installation and construction of the facilities, the Refiners may provide IPL, not later than 31 December 2001, with the Final Construction Notice to proceed with the construction and installation of the facilities and the reversal of Line 9.

2.6.3 Rights to Capacity

During the Primary Term, each Original Shipper[11] would have, in each contract year of the Primary Term, unapportioned access to its contract volume. Following the Primary Term, each Original Shipper would have unapportioned access to contract volume based on historical volumes shipped during the previous year.

IPL may also accept nominated volumes from full contract year shippers as well as interruptible shippers if the Original Shippers have nominated less than the full available capacity for each month in the relevant contract year or for any month.

2.6.4 Toll Design

It is included in the FSA that throughout the Primary Term, each Original Shipper would pay IPL's posted toll ("interim toll") for each cubic metre of crude oil it received from reversed Line 9. Throughout the Primary Term, the posted toll for the transportation of crude oil from the receipt point at Montreal to the delivery point at Sarnia would be $\$3.195/m^3$ ($0.508/bbl). Interim tolls for transportation of a cubic metre of crude oil from Montreal to other delivery points would be derived by adjusting the aforementioned amount to take into account IPL's distance based toll methodology. During the Extended Term, tolls for any transportation service on reversed Line 9 would be calculated on a stand-alone basis. IPL would charge full contract year shippers and interruptible shippers the applicable toll on all volumes of crude oil delivered to such shippers from the reversed Line 9.

In the event of a re-reversal, the obligations of the Refiners respecting the payment of the annual revenue requirement would remain unaffected except that the annual revenue requirement for the remainder of the contract year in which the re-reversal falls, and each contract year thereafter, would be reduced by the amount of any costs that are recovered by IPL from the use by shippers of the

[11] Original Shipper is defined in the FSA as the Refiners and any person who becomes a party to the agreement as an Original Shipper.

re-reversal assets. It is further noted that re-reversal would not constitute an event terminating the FSA whether by application of the doctrine of frustration, or otherwise.

The FSA also defines the annual revenue requirement; the rates used to determine depreciation and amortization; and the Line 9 Deficiency Amount, which is $10,000,000 plus interest thereon calculated at the Line 9 Deficiency Amount cost of debt from 26 July 1996 to the Commencement Date. Similarly, there is an outline of the elements of the Line 9 rate base and rate base additions, as well as a detailed breakdown of the debt and equity components of the rate base and project costs.

2.6.5 Early Termination

In the event of early termination, descriptions of how costs will be allocated have been included in the FSA, under various scenarios. These scenarios include circumstances where either IPL or the Original Shippers cause termination of the FSA. Generally, if the Original Shippers terminate the FSA or fail to provide a Final Construction Notice, they will pay to IPL the sum, or at least a large portion of all project costs, development costs and accumulated residual operating costs. Similarily, if IPL terminates the FSA it would generally bear all project, development, and accumulated residual operating costs.

Chapter 3

Facilities

3.1 Overview of Facilities

Between 1976 and 1996, Line 9 was in service transporting crude oil between Sarnia and points east. In 1996, based on shipper crude oil demand, deliveries were suspended through the section of Line 9 between North Westover, Ontario and Montreal ("Line 9B"). Although this section of Line 9 is presently purged with nitrogen, it remains available for west-to-east service. The section of Line 9 between Sarnia and North Westover ("Line 9A") still operates in a west-to-east configuration, delivering crude oil into Westover Station and Terminal for further deliveries downstream to the following refineries:

- Petro-Canada at Oakville, Ontario;
- Imperial at Nanticoke, Ontario via IPL's Line 11; and
- United Refining Company at Warren, Pennsylvania via IPL's Line 10 (export point at Chippawa, Ontario) and the Kiantone Pipeline.

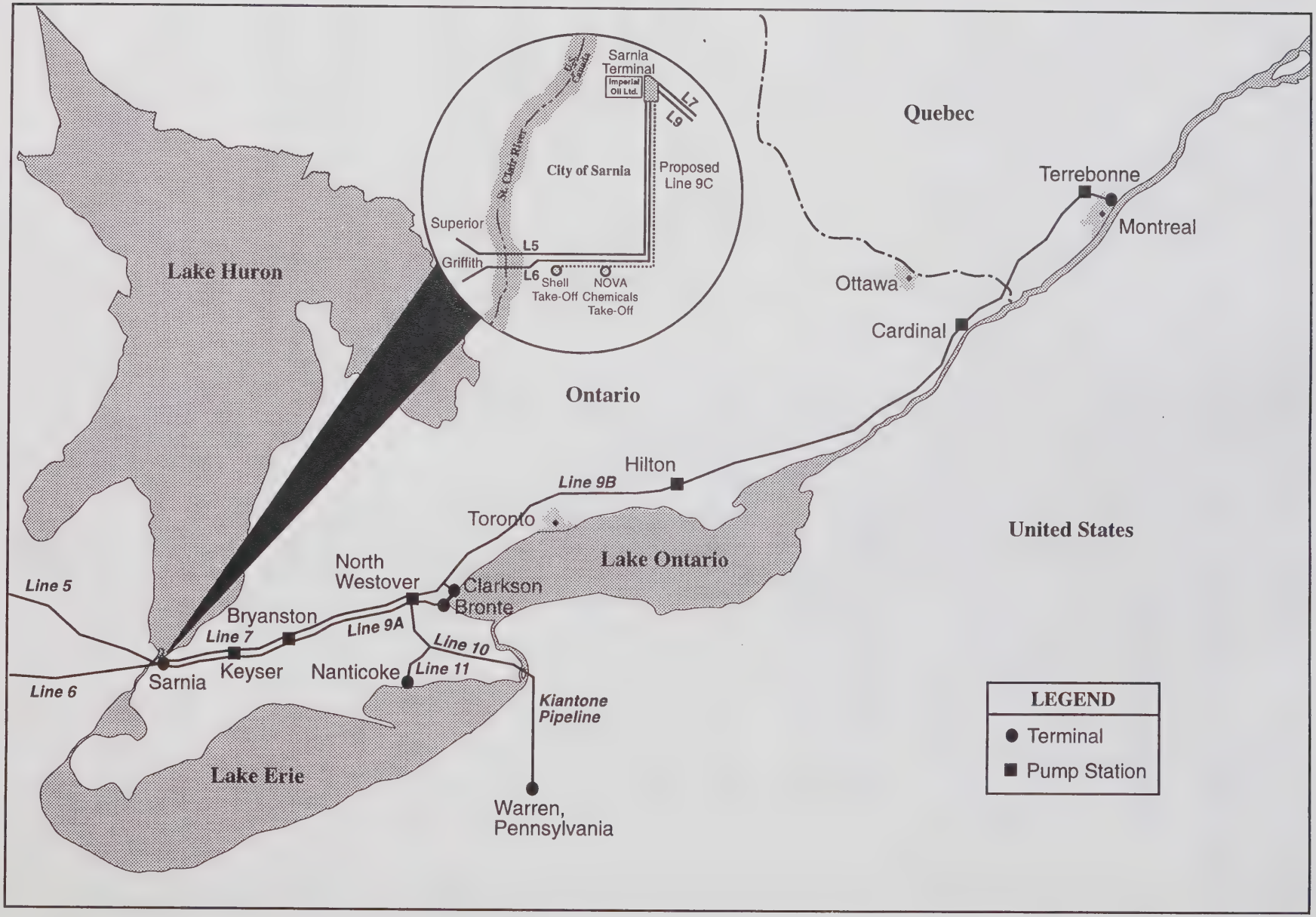
Line 9 in reversed operation would initiate at the Montreal Terminal and terminate at the Sarnia Terminal. Offshore crude oil would be imported into Montreal through the facilities of the Portland-Montreal system. From Montreal, this crude oil would be transported through Line 9 to the refineries at Oakville, Nanticoke and Sarnia. Deliveries to the Sarnia area refineries (Imperial, Shell and NOVA Chemicals) would utilize an existing Sarnia Terminal pipeline and a new pipeline to the refinery take-offs, while deliveries to Nanticoke would utilize IPL's Line 11 out of the Westover Terminal. Deliveries to Oakville would utilize the existing Bronte Pipeline and the idle Clarkson Lateral.

The Clarkson Lateral consists of 13.6 km (8.5 miles) of 610 mm (24 inch) OD pipeline, originating at the Ninth Line Junction on Line 9 and terminating at the Clarkson Terminal. The Clarkson Lateral was constructed in 1984 and, until 1992, was in service transporting crude oil from the Clarkson (now Mississauga) refinery to the Ninth Line Junction for injection into Line 9. The Clarkson Lateral is currently filled with nitrogen.

A reversed Line 9 would be operated in a batch mode; that is discrete streams of crude oil would be transported in sequence through the pipeline. IPL submitted that the design and operation of Line 9 would be such that original batches arriving at their respective delivery locations would meet acceptable quality standards. The crude oil proposed for transport in Line 9 includes light sweet, lube, light and medium sour, and condensate.

The Line 9 Reversal Project would provide IPL with the ability to re-reverse Line 9 to a west-to-east mode in the future. As the current configuration of Line 9 provides for west-to-east flow, minimal additional facilities would be required to accommodate re-reversal. The cost of the re-reversal facilities, estimated at $500,000, is included in the scope of the Line 9 Reversal Project.

Figure 3-1
Existing Pipeline System and Proposed Facilities



3.1.1 Line 7

IPL's Line 7 consists of 251 km (156 miles) of 508 mm (20 inch) OD pipeline originating at the Sarnia Terminal and terminating at the Clarkson and Bronte Terminals. Line 7 and Line 9 share a right of way between Sarnia and Millgrove Junction. Line 7 currently operates in a west-to-east mode transporting synthetic, light, medium and heavy crude oil to the refineries at Oakville, Nanticoke and Warren.

The Line 9 Reversal Project would impact the existing operation of Line 7. As discussed in section 3.2.2, Line 9 capacity would be limited by upstream constraints on the Portland-Montreal system until January 1999. Due to these constraints, the limited capacity of the reversed Line 9 and the existing capacity of Line 7 would be insufficient to meet refinery demand in mid-Ontario. To meet refinery demand, IPL would temporarily increase the capacity of Line 7 until Line 9 is able to achieve its full capacity. Following Line 9 reversal, Line 7 would continue to deliver eastwards to the refineries at Oakville, Nanticoke and Warren.

3.2 System Design

3.2.1 Facilities

The Line 9 Reversal Project would primarily utilize existing IPL facilities. However, certain modifications and additions would be required to enable reversed and re-reversed operating capability.

At the Montreal Terminal, piping modifications, booster pumps and associated electrical facilities would be installed, while existing scraper trap facilities and custody transfer metering would be utilized. One new mainline pump station would be constructed on a site near Terrebonne, Quebec. Modifications to piping would enable existing pump stations in Ontario at Cardinal, Hilton, North Westover and Clarkson to be utilized.

At the Sarnia Terminal, piping modifications and new connecting pipe would be installed. In particular, IPL would construct a 508 mm (20 inch) OD, 9.8 km (6.1 mile) pipeline ("Line 9C"). Line 9C would extend from the Sarnia Terminal to the refinery take-offs of NOVA Chemicals and Shell within IPL's existing right of way for Lines 5 and 6. Permanent scraper trap facilities would be installed on each end of Line 9C to facilitate internal inspection.

Other construction along the Line 9 right of way would include the relocation and lowering of approximately 300 m of pipeline near Pickering, Ontario. Six densitometer facilities and seven remote valve operators would be installed at existing valve or station sites. Other activities would consist primarily of removing or modifying existing flanges and piping at existing stations and valve sites to enable reversed and re-reversed flow.

With respect to Line 7, additional pumping capacity would be required to achieve the necessary capacity increase. At the Sarnia Terminal, one additional mainline and booster pump unit would be installed within the initiating station on Line 7. The existing pump stations at Keyser and Bryanston, Ontario would be reactivated.

IPL indicated that the reactivation of the Keyser Station would be considered short term. Based on the throughput forecast, the station is expected to be utilized for one to two years and the scope of the

reactivation would reflect this limited time requirement. The Keyser Station would be monitored during this time and all maintenance requirements necessary to ensure station integrity would be undertaken. If the Keyser Station is required beyond one to two years (i.e., if actual volumes continue to be higher than forecast for the long term), IPL submitted that it would reassess the longevity of the station and address any additional matters at that time.

Line 9 in reversed operation would be monitored and controlled from the Sarnia Control Centre by IPL's pipeline control system. The leak detection system for the reversed Line 9 would be a volume balance system, which would be integrated with the leak detection system on the Older System. Sensor data would be transmitted through IPL's supervisory control and data acquisition ("SCADA") system to the Sarnia Control Centre.

IPL submitted that the Line 9 Reversal Project would be designed, constructed and operated in accordance with the Board's *Onshore Pipeline Regulations*[12] and the 1996 edition of the Canadian Standards Association ("CSA") standard Z662, *Oil and Gas Pipeline Systems* ("Z662").

3.2.1.1 Tankage

Montreal Terminal

IPL does not own or operate any crude oil storage at the Montreal Terminal. However, to allow for the transfer of crude oil from the Portland-Montreal system to Line 9, Montreal Pipe Line would be leasing and operating additional storage tanks in Montreal. IPL submitted that leasing arrangements have not been finalized but negotiations are in progress.

Since the Line 9 Reversal Project would utilize existing storage tanks at Montreal, Quebec expressed concern that the use of these tanks by the Montreal refineries, in times of need, may be more problematic in the future. Therefore, Quebec requested that the Board ensure that the facilities and storage capacities at Montreal Terminal be adequate to cover the current and future needs of the Montreal refineries, as well as the shippers on Line 9.

In reply to Quebec's request, IPL expressed difficulty in understanding how the Board could implement such a condition, given that the storage tanks at Montreal are not owned by IPL and are not regulated by the Board.

Westover Terminal

IPL owns and operates seven crude oil storage tanks at the Westover Terminal. After the reversal of Line 9, these seven tanks would continue to be used for the receipt of western Canadian crude oil from Line 7.

For offshore volumes on Line 9, IPL's forecast indicates that only sour crude oil would be delivered into the Westover Terminal for further delivery to Nanticoke. To segregate the sour crude oil from the western Canadian crude oil entering Westover, IPL would construct, on existing IPL property, a 23 580 m^3 (150,000 bbl) storage tank for light sour crude oil. If other offshore crude oil streams

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[12] S.O.R./89-303.

should enter the Westover Terminal, IPL has assumed that these crude oil streams would utilize the new light sour crude oil tank.

Sarnia Terminal

IPL owns and operates 17 crude oil storage tanks at the Sarnia Terminal. Offshore crude oil entering the Sarnia Terminal would have the capability to access all tanks within the tank farm. However, three of the existing tanks would be allocated to the Line 9 Reversal Project for offshore volumes (i.e., all offshore crude oil will be segregated from western Canadian crude oil). While this is the proposed tankage allocation, IPL noted that the most efficient use of all tanks is considered during the daily operation of the tank farm. Further discussion on tankage allocation at the Sarnia Terminal with respect to rate base inclusion is provided in section 8.6.6.

3.2.1.2 Re-reversal of Line 9

To facilitate re-reversal of Line 9, spacer rings and blind flanges would be used in the crossover piping at Line 9 stations and terminals. In addition, the pipeline control system for the reversed Line 9 would be integrally designed for re-reversal.

With respect to timing, IPL indicated that the intent of the station design is to allow for re-reversal of the complete Line 9 system within six weeks. However, Line 9A would be capable of re-reversal within two weeks, primarily because it would require fewer facility modifications than the longer Line 9B segment.

Quebec submitted that the inclusion of re-reversal equipment in the Line 9 Reversal Project is essential if Montreal refineries are to maintain security of supply to western Canadian crude oil. However, it expressed concerns about the administrative mechanisms, lead times and pumping capacities related to re-reversal. The issue of re-reversal and, in particular, Quebec's concerns are further addressed in Chapter 9.

3.2.2 Capacities

The current annual capacities of Line 7 and Line 9 are 17 500 m^3/d (110,100 b/d) and 35 400 m^3/d (222,800 b/d), respectively.

Line 9 in reversed operation would be designed for an annual capacity of 38 160 m^3/d (240,000 b/d). However, this level would not be expected immediately upon reversal due to upstream constraints on the Portland-Montreal system.

The Portland-Montreal system currently supplies the refineries in Montreal using a 610 mm (24 inch) OD pipeline that transports crude oil from Portland, Maine to Montreal. The current maximum capacity of the pipeline is 43 600 m^3/d (275,000 b/d). Montreal Pipe Line has filed applications with the Board for two projects that would increase crude oil delivery capacity to Montreal.

The first project would increase the capacity of the 610 mm OD pipeline to 61 600 m^3/d (388,000 b/d) by 1 April 1998. IPL submitted that refinery demand in Montreal for 1998 could be up to 35 000 m^3/d (220,000 b/d). Therefore, after accounting for variations in demand and between design

and annual capacity, approximately 25 440 m^3/d (160,000 b/d) would be available to meet the throughput requirements for the first year of reversed Line 9 operation.

The second project consists of converting a 457 mm (18 inch) OD pipeline between Portland and Montreal presently in natural gas service, by 1 January 1999. The capacity of this pipeline using a four pump station configuration would be 21 700 m^3/d (137,000 b/d). When both projects are completed, the Portland-Montreal system would have a combined capacity of 83 300 m^3/d (525,000 b/d) to meet the requirements of the Montreal refineries and shipments through Line 9.

IPL is proposing to increase the capacity of Line 7 to compensate for the reduced Line 9 volumes into mid-Ontario. A "powered up" Line 7 would have a capacity of 28 600 m^3/d (180,000 b/d). The difference between total refinery demand of 38 160 m^3/d (240,000 b/d) and the Line 7 capacity of 28 600 m^3/d (180,000 b/d) would be made up of volumes shipped on the reversed Line 9. IPL expects that throughput on Line 7 would decrease to 20 000 m^3/d (126,000 b/d) as western Canadian crude oil is displaced by increasing volumes of offshore crude oil. Line 7 would be able to accommodate this level of throughput with only the Sarnia and Bryanston pump stations, in operation.

The Refiners indicated that they anticipate fully utilizing the 38 160 m^3/d (240,000 b/d) capacity of the reversed Line 9.

3.2.3 Expansion Capacities

While there are no facilities for expansion capacity (beyond the design capacity of 38 160 m^3/d (240,000 b/d)) contained in IPL's application, there was some discussion during the proceeding about the possible expansion capabilities of Line 9 in reversed mode. Based on conceptual design work, IPL submitted that Line 9 could be expanded in four phases to attain an annual capacity of approximately 78 820 m^3/d (496,000 b/d).

Phase one would involve the installation of drag-reducing agent ("DRA") facilities at the Cardinal and Hilton pump stations, at an estimated capital cost of $350,000. This would provide an additional 3 970 m^3/d (25,000 b/d) of capacity. Expansion phases beyond this would require the addition of numerous pump stations on Line 9 and major expansion facilities on the Portland-Montreal system.

IPL submitted that the capacity of Line 7 could reasonably be expanded to an annual capacity of 33 530 m^3/d (211,000 b/d) with the addition of a fourth pump station. The estimated capital cost for this capacity increase is $6 million and does not include any potential costs associated with modifications at the Keyser Station.

3.2.4 Alternative Designs

United submitted that the Line 9 Reversal Project would significantly change IPL's pipeline operations east of Sarnia. Currently, Lines 7 and 9A have a combined west-to-east capacity of 52 900 m^3/d (333,000 b/d) while the refineries served require 38 200 m^3/d (240,000 b/d). If Line 9A is reversed, United submitted that IPL's west-to-east capacity would be less than the historical shipments to these refineries and that west-to-east nominations would likely exceed Line 7 capacity on a seasonal basis. Therefore, United argued that the margin for error in redesigning Line 7 is inadequate.

As a result of these concerns, United questioned the proposed design for Line 7 and whether alternative configurations had been considered. In particular, it examined the possibility of reversing Line 7 to meet the requirements of the Sarnia refineries and maintaining Line 9A in west-to-east service for western Canadian crude oil. IPL replied that it had considered this pipeline configuration briefly, but not in detail, for the following reasons:

- Since the capacity of a reversed Line 7 would be significantly less than the capacity of a reversed Line 9A, Line 7 would limit the capacity of the reversed Line 9;
- Utilizing Line 9A to ship crude oil from west to east would result in an inefficient utilization of pipeline facilities; and
- Industry forecasts indicated that Line 7 would have sufficient capacity to transport crude oil volumes from west to east.

IPL reiterated during the proceeding that the proposed configuration of Line 7 and Line 9 is sufficient to meet the forecast needs of all of its shippers. Notwithstanding IPL's assurances, United maintained that its concerns necessitated an application to the Board for priority destination designation on Line 7, as discussed in Chapter 10.

The Alberta Department of Energy, the Small Explorers and Producers Association of Canada, Gulf Canada Resources Limited, Talisman Energy Inc. and Renaissance Energy Inc. ("ADOE and Producers") also questioned IPL's proposed pipeline configuration, in particular, whether it was technically possible to increase the capacity of a reversed Line 7 (assuming 100 percent light crude oil linefill) to a level greater than that proposed for Line 9A. IPL indicated that, while it would be possible on a conceptual basis, it would not have been practical to put a 508 mm OD pipeline at the end of a 762 mm OD pipeline and then have to power up the smaller diameter pipeline to levels that did not reflect any of the normal economies of designing pipelines.

Views of the Board

The Board is satisfied that IPL's proposed designs for Lines 7 and 9 are adequate to meet forecast refinery demand. United's application for priority destination designation is addressed in Chapter 10, while Quebec's concerns about re-reversal are addressed in Chapter 9. For the purposes of this proceeding, evidence related to possible expansions beyond the applied-for facilities was not considered, given that the current application does not include such an expansion. Furthermore, there is no evidence of a request for additional capacity.

3.3 Integrity

3.3.1 Line 9

During the proceeding, IPL indicated that it had completed hydrostatic tests of Line 9 and the Clarkson Lateral in August 1997 and that there were no leaks or ruptures on the mainline pipe. In IPL's view, the results of the hydrostatic tests confirmed the structural integrity of the pipelines for the Line 9 Reversal Project.

IPL has regularly performed in-line inspections ("ILI") for metal loss and deformations on Line 9 to ensure pipeline integrity. Line 9 was most recently inspected using a high resolution metal loss tool in

1994 and 1995. The results of that inspection indicated that the incidence of external metal loss has been relatively low. Therefore, IPL concluded that disbondment of the external tape coating has been minor. Some minor internal corrosion was also observed and, in IPL's view, was likely due to low flow conditions experienced by Line 9 in the past. For Line 9 in reversed operation, IPL expects that the flow characteristics and product corrosivity would be such that mitigative requirements for internal corrosion will be minimal.

The results of the most recent ILI using a high definition geometry tool (performed in 1994 and 1995) indicated 2,026 dents greater than two percent of the pipe diameter. However, only one dent (subsequently repaired) had a depth that exceeded the mandatory repair limit of six percent of pipe diameter specified by CSA Z662. Of the remaining 2,025 dents, 97 percent are between two and four percent of pipe diameter. IPL submitted that the majority of these deformations occurred on the bottom of the pipe as a result of rock contact in areas of pipe settlement, unevenness in the trench or some other source of point load. IPL has analyzed the ILI data to evaluate dent growth dynamics and submitted that Line 9 has come to its final settled position in the trench and that an increase in the number of dents is not expected to occur.

IPL has been monitoring Line 9 since 1993 for the presence of stress corrosion cracking ("SCC"). IPL has developed an SCC landscape model that takes into account the soil, drainage and topographical conditions along Line 9 that are known to co-exist with SCC. The model identified 716 areas between Sarnia and Montreal which exhibit the environmental conditions associated with SCC. To select candidate sites for excavation, IPL overlaid its ILI data with the landscape model and subsequently conducted 19 excavations for SCC inspection. In addition to these excavations, IPL also investigated for SCC during excavations for routine maintenance. IPL submitted that the results of all the investigative excavations indicated that Line 9 is susceptible to the initiation of SCC, but the maximum indications found were not significant, as defined by the Board's *Report of the Inquiry Concerning Stress Corrosion Cracking on Canadian Oil and Gas Pipelines*, ("SCC Inquiry Report").[13]

As recommended by the SCC Inquiry Report, IPL has filed with the Board an SCC Management Program which outlines, *inter alia*, IPL's monitoring and mitigative procedures for managing SCC on Line 9. During the proceeding, the Ontario Pipeline Landowners Association ("OPLA") and the Board questioned IPL on its SCC management activities, particularly with respect to the use of IPL's landscape model. IPL stated that its landscape model is constantly being refined as more excavations are performed and investigative data is analyzed. IPL reiterated its commitment to continuously monitor SCC on Line 9.

To maintain the overall integrity of Line 9, IPL committed to the following:

- Corrosion control would continue to be maintained through a cathodic protection system in accordance with CSA Z662.

- IPL would continue to use ILI to monitor the condition of Line 9 and develop pipeline integrity management programs. Periodic ILI using geometry and metal loss tools would be performed within a three to nine year period, depending on factors such as prior inspection results and cathodic protection system performance.

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[13] MH-2-95, Report dated November 1996.

- IPL would continue to conduct regular aerial and foot surveys of the Line 9 right of way.

With respect to leak detection, IPL submitted that it would continue to rely on a variety of techniques. These include aerial and ground line patrols, third party reports, product sensors at selected locations, monitoring of pipeline conditions through SCADA and its computational pipeline monitoring system.

3.3.2 Line 7

IPL submitted that its inspection and maintenance activities have shown that Line 7 has a very low defect population with respect to geometry and metal loss anomalies. The preliminary results from a 1997 ILI using a high resolution metal loss tool indicated that the vast majority of metal loss defects were minor in nature. However, based on these preliminary results, excavations are planned at ten sites where IPL's limits of corrosion have been exceeded. Ten additional sites for data calibration analysis and five sites for investigation of dent anomalies would also be excavated. IPL submitted that the results of these excavations will provide further direction for any additional mitigative activities on Line 7.

With respect to SCC, IPL submitted that susceptibility on Line 7 is expected to be minimal, given that most of the pipeline is coated with coal tar enamel which is performing satisfactorily. Although no SCC model has been developed for the coal tar coated sections, SCC examinations were performed at four locations and no indications of SCC were found. However, IPL committed to continue monitoring for SCC on the coal tar coated sections of Line 7.

Nearly all of the stations along Line 7 contain some pipe that is coated with polyethylene tape and therefore is considered by IPL to be susceptible to SCC, independent of the proposed increase in throughput. A single examination for SCC on the tape coated pipe within the Keyser Station revealed SCC. However, the total length of SCC susceptible pipe on Line 7 is very small in proportion to the entire length of Line 7 and is restricted to IPL property. In its SCC Management Program, IPL committed to itemizing the amount of tape coated mainline station pipe along Line 7 by 30 April 1998. In stations where tape coated pipe exists, some of the station pipe would be hydrostatically tested or replaced with new pipe coated with a non-susceptible coating[14] and additional investigative excavations on the tape coated pipe would be conducted.

3.3.3 Maximum Operating Pressures

As noted in section 3.3.1, Line 9 and the Clarkson Lateral were recently hydrostatically tested. Line 9C would be hydrostatically tested following its construction. The proposed maximum operating pressures ("MOP") for Line 9, the Clarkson Lateral and Line 9C are listed in Table 3.1.

Line 7 was originally hydrostatically tested in 1957. The maximum operating pressures resulting from that test were in place on Line 7 from 1957 until 1966. In 1966, the pipeline was retested from Sarnia to Kilometre Post 2989.23, utilizing the flowing test criteria in force at that time, to increase maximum pipeline operating pressures After the proposed reactivation of the Keyser and Bryanston Stations, Line 7 would continue to operate within the existing pressure limitations.

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[14] The Board's SCC Inquiry Report (p. 59) concluded that fusion bonded epoxy, urethane, liquid epoxy and extruded polyethylene coatings have established their effectiveness in protecting pipelines from SCC.

Table 3-1
Proposed Maximum Operating Pressures

Test Section	East Section Kilometre Post	Hydrostatic Strength Test Pressure (kPa)	Proposed MOP (kPa)
1	2826.137	6 426	5 141
2	2903.031	5 061	4 049
3	2961.804	5 798	4 639
4	2997.500	5 792	4 634
5	3023.973	7 357	5 886
6	3093.529	6 715	5 372
7	3136.644	5 557	4 446
8	3182.478	5 702	4 562
9	3213.957	5 412	4 330
10	3237.067	7 515	6 012
11	3291.623	6 715	5 372
12	3354.967	5 978	4 782
13	3430.402	5 964	4 771
14	3483.119	5 861	4 688
15	3527.473	5 840	4 672
16	3601.647	5 585	4 468
17	3616.533	5 826	4 661
18	3636.470	3 103	2 482
19 (Clarkson Lateral)	3022.209	8 122	6 498
20 (Line 9C)	2803.310	12 593	10 075

Views of the Board

The Board is of the view that the integrity of the existing facilities is such that it would allow for the safe operation of Lines 7 and 9. For Line 9 in particular, the results of the hydrostatic test validate the structural integrity of the pipeline and confirm that no near-critical defects exist in the pipeline today.

The Board is satisfied that IPL's operating and monitoring practices will address the ongoing integrity of Lines 7 and 9. With respect to SCC, IPL's proposed monitoring and mitigative plans will continue to be addressed in a separate process before the Board.

Chapter 4

Environment and Public Safety

4.1 Environmental Screening Report

The Board, pursuant to its regulatory process and the *Canadian Environmental Assessment Act*[15] ("CEAA"), completed an Environmental Screening Report of the proposed construction related to the Line 9 Reversal Project. The Board circulated the Environmental Screening Report to the applicant and the federal agencies that provided specialist advice. No parties to this proceeding requested a copy of the report.

The Board has considered the Environmental Screening Report and the comments received on the report and is of the view that, taking into account the implementation of the proposed mitigative measures and those set out in the conditions attached to Order XO-J1-34-97, IPL's Line 9 Reversal Project is not likely to cause significant adverse environmental effects. This represents a decision pursuant to paragraph 20(1)(a) of the CEAA.

The comments received and the Board's views form Appendices I and II, respectively, of the Environmental Screening Report. Copies of the Environmental Screening Report are available upon request from the Board's Regulatory Support Office.

4.2 Emergency Response

Pursuant to paragraph 48(1)(1) of the *Onshore Pipeline Regulations, IPL's Emergency Response Plan ("ERP") is on file with the Board. IPL has committed to filing an updated ERP to reflect the proposed change in operation for Line 9 and the Clarkson Lateral.*

As part of its Public Awareness Program, IPL submitted that it carries out government, fire and police agency contacts approximately every two to three years along Line 9 and the Clarkson Lateral. The purpose of the contact is to make the agencies aware of the location of IPL's facilities, a 24-hour emergency phone number and the procedures to follow in the event of an emergency. IPL provides a safety pamphlet, a map indicating the location of IPL facilities and the Board's pamphlet entitled Living and Working Near Pipelines. For fire and police agencies in particular, IPL provides a booklet entitled *Emergency Call Out Procedures*, which contains information regarding emergency response to station sites and Material Safety Data Sheets ("MSDS") for the products shipped. The MSDS provide detailed information on product characteristics, hazard identification, first aid and fire fighting measures. IPL indicated that it would be contacting the government, police and fire departments along Line 9 and the Clarkson Lateral prior to the pipelines being placed in reversed operation.

[15] S.C. 1992, c. 37.

The focus of IPL's annual Public Awareness Program for landowners and tenants[16] is to ensure that they are aware of the location of IPL's pipelines, the products shipped, the requirements associated with excavating near the pipelines and the procedures to follow in the event of an emergency. Landowners and tenants are provided with a letter from the Region Manager addressing safety issues, a safety brochure, the Board's pamphlet entitled *Living and Working Near Pipelines* and a promotional item which displays the 24-hour emergency phone number. In addition to landowners and tenants, IPL also includes "neighbours", defined as individuals living within 60 m of the easement, and municipalities, townships and communities in its Public Awareness Program.

The Board questioned whether there could be individuals living outside the 60 m notification zone that could be affected by a leak or rupture on Line 9. IPL replied that it was entirely possible but, as a matter of efficiency, there has to be some sort of boundary to the notification zone. IPL was unable to explain how the 60 m boundary was determined, other than the fact that it has been part of the Public Awareness Program since its inception.

IPL indicated that it has not established hazard distances for Line 9, similar to those developed in the IPL Line 8[17] proceeding. IPL expressed concern with a condition that would require IPL to establish hazard zones for Line 9 or, alternatively, to justify why the Line 8 hazard zones would be appropriate for Line 9. IPL submitted that the Line 8 hazard zones were determined to calculate the risks to individuals under different circumstances and not for the purpose of implementing an emergency response plan to notify individuals.

IPL submitted that subsection 50(1) of the *Onshore Pipeline Regulations* does not mandate a specific distance in which a company must carry out its Public Awareness Program. Further, its current practice of a 60 m notification zone exceeds current industry practices in the eastern region. However, IPL would be prepared to increase the notification zone to 80 m for future Public Awareness Programs. This distance was based on one of the hazard scenarios proposed in the Line 8 Comparative Risk Assessment[18], in that the hazard zone for a burning pool could be approximately 80 m in diameter.

When asked whether there could be people living beyond the 80 m zone that could be impacted during emergency response procedures, IPL responded that it attempts to do the most effective notification possible, while recognizing that 100 percent effective notification is probably not achievable. In IPL's view, contacting the landowners nearest the pipeline on a personal basis is very effective and efficient. However, notification gets much less effective as the distance from the pipeline increases.

In final argument, IPL submitted that personal notification of hazards presents logistical problems and increased perceptions of problems that may or may not exist. IPL considered it to be inappropriate for

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[16] IPL defines landowners as titleholders of property along the easement and tenants as individuals who are residents but not titleholders.

[17] Interprovincial Pipe Line Inc., OH-4-96, Application for the construction of additional facilities and reactivation of existing facilities, Reasons for Decision dated April 1997 ("IPL Line 8 Decision"). In that Decision the Board included a condition that directed IPL to advise all affected municipalities, landowners and other residents that may be living in the identified hazard zones of the proposed Line 8 Oil Products Transportation System of the necessary actions to be taken in the event of a pipeline emergency.

[18] *Final Report for Line 8 Oil Products Transportation Project, Comparative Risk Assessment*, F.G. Bercha and Associates (Alberta) Limited, December 1996, p. 4.12, filed as exhibit B-17 in OH-4-96.

the Board to carry forward a condition that stems from a critique in the Line 8 proceeding. In IPL's view, its Public Awareness Program is comprehensive and has provided adequate safety in the past.

Views of the Board

The *SCC Inquiry Report* recommends that the Board review companies' emergency response practices to ensure that adequate training is provided to first responder organizations and that appropriate information is provided to the communities on the proper procedures to be followed in the event of pipeline emergencies.

The Board will address the issue of IPL's emergency response practices outside the scope of these Reasons for Decision and within the Board's safety auditing function. Until that time, the Board directs IPL to proceed with its current practices of emergency response preparedness along Line 9 and the Clarkson Lateral.

Chapter 5

Other Public Interest Issues

5.1 Early Public Notification

The *Guidelines for Filing Requirements* require that, prior to filing a facilities application, a proponent implement a public information program which explains the potential environmental and social effects of the project, allows opportunity and time for public comment, and responds to relevant concerns. The expectation is that public input at the project design and development stage would be incorporated into the proposed project.

IPL submitted that its Early Public Notification ("EPN") program for the Line 9 Reversal Project was designed to promote communication between IPL and interested persons. The EPN program included the preparation and distribution of information bulletins to affected parties; presentations at open houses held at various locations between Montreal and Sarnia; establishment of a 1-800 telephone number to facilitate answering questions from the public; as well as meetings with individuals and groups who wanted to discuss specific concerns.

Between August 1996 and June 1997, IPL sent four Public Information Bulletins to landowners residing along IPL's Line 9 right of way and other relevant interest groups.

Newspaper advertisements with respect to the open houses were placed in regional papers commencing 4 November 1996. The advertisements described the Line 9 Reversal Project, invited all parties to attend the scheduled open houses and identified a 1-800 number that the public could use to pose questions or provide comments regarding the project.

In addition, IPL also used newspaper notices to advertise the site-specific open houses at Terrebonne, Westover and Sarnia.

Between 18 November 1996 and 5 December 1996, presentations were made at 12 open houses held in close proximity to the Line 9 right-of-way corridor between Montreal and Sarnia. A total of 113 people registered at the open houses.

In addition, IPL held a second series of site-specific open houses at locales where major construction activities were proposed (Terrebonne, Westover and Sarnia), which were designed to more fully describe the construction activities. Notification for each of the open houses was provided by newspaper advertisements and hand delivery of information packages to stakeholders immediately adjacent to the area of construction.

5.2 Easement Agreements

In its letter of intervention, OPLA requested that the Board add an issue to the List of Issues to address the determination of which hydrocarbons can be transported in Line 9 under the existing landowner Easement Agreements. The Board agreed to do so only insofar as the examination would be limited to the products to be transported as applied for by IPL.

At about the same time the Board received a letter, not in the context of this proceeding, from Mr. Ned Kozowyk on behalf of his father, Mr. Alex Kozowyk, a landowner along the right of way for Lines 7, 8 and 9. Mr. Kozowyk requested the Board's opinion on its authority relating to right-of-way agreements. Specifically, he asked whether the Board has any power or authority to rule on aspects of an agreement negotiated between a pipeline company and a landowner prior to the passing of the Act. As this question specifically raised the issue of the Board's ability to decide the issue suggested by OPLA, the Board referred the question to the Panel seized with Line 9 to enquire into it and make a determination. It was decided parties to the Line 9 proceeding were requested to address the following question:

> Does the Board have jurisdiction to enquire into and adjudicate on aspects of a land acquisition agreement, in particular those signed prior to the coming into force of the *National Energy Board Act?*

5.2.1 Background and Legislative Framework

To assist in understanding the arguments made by parties and the decision of the Board, it may be useful to include the background of easement agreements for Line 9 and the legislative framework applicable to the determination. Parties may also refer to the IPL Line 8 Decision[19] for more detail.

After being authorized in 1956 to build a pipeline by the Board of Transport Commissioners for Canada, IPL signed Easement and Right-of-Way Agreements with landowners in 1956 and 1957. Those Agreements provided for the construction of what is now known as Line 7, from Sarnia to Port Credit, Ontario. For the construction of Line 9, IPL utilized the existing Line 7 right of way which allowed for multiple lines from Sarnia to Millgrove Junction and, as such, new agreements were not required for the construction of that portion of Line 9. New easement agreements, however, were required for that portion of new Line 9 right of way between Millgrove Junction, Ontario and Montréal, Québec. Those agreements were negotiated between 1975 and 1976.

As to the proposed Line 9C between Sarnia Terminal and the refinery take-offs, IPL would utilize the existing Line 5 and 6 right of way. The Line 5 and 6 Easement Agreements contain multi-line rights and were acquired during 1954 and 1955.

It is the Easement Agreements along the original Line 7 right of way which raised the issues under consideration in this proceeding.

At the time the Line 7 Easement Agreements were signed, the *Pipe Lines Act*[20] was in force. Section 2 of that Act states, in part:

> 2. (1) In this Act and in any Special Act,
>
> ...
>
> (f) "oil" means any liquid hydrocarbon....

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[19] Supra, footnote 17, at pp. 20-21.

[20] R.S., 1952, c. 211.

The definitions in the *National Energy Board Act* that are discussed are provided below.

> 2. In this Act,
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> ...
>
> "gas" means
>
> (*a*) any hydrocarbon or mixture of hydrocarbons that, at a temperature of 15 ° C and a pressure of 101.325 kPa, is in a gaseous state...
>
> ...
>
> "oil" means
>
> (*a*) any hydrocarbon or mixture of hydrocarbons other than gas...
>
> ...
>
> "pipeline" means a line that is used or to be used for the transmission of oil or gas, alone or with any other commodity, and that connects a province with any other province or provinces or extends beyond the limits of a province or the offshore area as defined in section 123, and includes all branches, extensions, tanks, reservoirs, storage facilities, pumps, racks, compressors, loading facilities, interstation systems of communication by telephone, telegraph or radio and real and personal property and works connected therewith....

Some of the sections of the Act which are referred to in examining the Board's powers to adjudicate on easement agreements are included here for ease of reference.

> 12. (1) The Board has full and exclusive jurisdiction to inquire into, hear and determine any matter
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> (*a*) where it appears to the Board that any person has failed to do any act, matter or thing required to be done by this Act or by any regulation, certificate, licence or permit or any order or direction made by the Board, or that any person has done or is doing any act, matter or thing contrary to or in contravention of this Act, or any such regulation, certificate, licence, permit, order or direction; or
>
> (*b*) where it appears to the Board that the circumstances may require the Board, in the public interest, to make any order or give any direction, leave, sanction or approval that by law it is authorized to make or give, or with respect to any matter, act or thing that by this Act or any such regulation, certificate, licence, permit, order or direction is prohibited, sanctioned or required to be done.
>
> 54. (1) The Board may issue a certificate subject to such terms and conditions as the Board considers necessary or desirable in the public interest.
>
> 104. (1) Subject to subsection (2), the Board may, on application in writing by a company, if the Board considers it proper to do so, issue an order to the company granting it an immediate right to enter any lands on such terms and conditions, if any, as the Board may specify in the order.

> 112. (1) Subject to subsection (5), no person shall, unless leave is first obtained from the Board, construct a facility across, on, along or under a pipeline or excavate using power-operated equipment or explosives within thirty metres of a pipeline.

When the Easement Agreements for Line 7 were signed, there were no legislative requirements with respect to the content of agreements. The Act was subsequently amended to include section 86 which provides certain protection for landowners in the land acquisition agreements.

5.2.2 Jurisdiction of the Board

The initial question to be determined is whether the Board has jurisdiction to adjudicate on easement agreements in general and specifically those signed before the Act came into force. Should the Board find that it does not have jurisdiction, it would not need to address the question of whether the IPL Easement Agreements authorize the transportation of the hydrocarbons proposed to be shipped.

Mr. Kozowyk's Position

Mr. Kozowyk argued that section 86 of the Act makes it clear that Parliament did not intend for the Board to exercise jurisdiction with respect to land rights where an acquisition agreement has been entered into between the pipeline company and the owner of the lands other than to ensure that certain minimum requirements, as required by subsection 86(2) of the Act, are contained in the agreement. He argued that, if the Board were to have jurisdiction over any land acquisition matters other than those explicitly listed in the Act, then they would have been specifically stated in the Act. The Board's only power with respect to land acquisition matters relates to granting right of entry orders under section 104 of the Act. The Board has not been given the power to adjudicate on land acquisition agreements.

It was noted that the definition of "pipeline" in the Act refers to "personal property", but only with reference to the physical properties that make up a pipeline. Mr. Kozowyk submitted that, given the numerous very specific items included in the definition, an item as important as land acquisition agreements should have been specifically mentioned if it was intended to be included.

Mr. Kozowyk then turned to the powers of the Board under section 12 of the Act. He argued that paragraph 12(1)(a) only provides for the Board to inquire into failures to do any act, matter or thing required by the Act. This provision does not apply where matters are carried out in accordance with the Act, for example where land acquisition agreements have been signed. It was submitted that paragraph 12(1)(b), allowing the Board to make any order that by law it is authorized to make, limits the Board to making decisions that it specifically has the power to make. This power, such as ruling on existing land acquisition agreements, would have had to be specifically granted to the Board. Paragraph 12(1)(b) does not by itself grant such powers.

In summary, it was argued that given that a very specific remedy exists in the Act, where agreement cannot be reached with respect to land acquisition (that is, a right of entry order), it is clear that the Board cannot rule on a land acquisition agreement. Any disputes on these issues must be settled in court.

With respect to the fact that the Easement Agreements were signed prior to the Act coming into force, Mr. Kozowyk pointed out that it can be argued that any Board ruling will take effect only from the date of the ruling and not affect agreements retroactively. He submitted that, if the Board has the power to rule retroactively that condensate is a product of oil, then it would also have the power to change agreements in any way it wanted, for example, that the easement should be twice as wide. In Mr. Kozowyk's view, given the absurdity of this, it is clear that the Board cannot address the issue raised by OPLA and retroactively define what products were intended to be included in the original lease.

IPL's Position

IPL argued that the determination of whether the Board has the jurisdiction to adjudicate on land acquisition agreements depends on what is meant by the term "adjudicate". It stated that the Board does not have the jurisdiction to adjudicate on the legal effect of an easement agreement, whether before or after the coming into force of the Act, in the same sense that a court would. The Board cannot make findings that are binding as between the parties to an agreement. However, in IPL's view, this does not mean that the Board does not have the jurisdiction to make findings with respect to certain issues, if it is necessary to do so in exercising the Board's statutory powers under the Act. Indeed, the rights in dispute under the easement agreement may well be relevant and a factor to be addressed by the Board when assessing the merits of the application.

It was argued that the Board's authority to consider and decide on such matters can be found under section 12 of the Act. This gives the Board jurisdiction to decide all matters of law or fact that are brought before it in the context of the Act. This, in IPL's submission, is analogous to examining the law in Alberta for the construction of facilities, which the Board has done in the past.[21] It was suggested that given the broad scope of subsection 54(1) of the Act, there are many situations which require the interpretation of contracts or legislation which affects the exercise of the Board's powers.

Counsel noted that the cases filed by Trans Mountain give examples of situations where the Board considered gas purchase agreements and the effect on regulated gas prices. These cases show that the Board has the jurisdiction to review contracts and even override them. This ability to examine agreements can be seen in the current case in the consideration of the FSA and the CRA.

Parkhill Furniture & Bedding Ltd. v. *I.M.A.W., Local 174*[22] was commended to the Board for the analytical approach which was used. There, the court found that the Labour Relations Board could inquire into and make determinations as to the law of bankruptcy as it related to labour relations issues under the enabling statute. Similarly, in *Re Lunenberg Sea Products Ltd.*[23], referred to in *Parkhill*, a Labour Relations Board was called on to make findings on the law of master/servant relationships in employment law in order to exercise its duties.

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[21] TransCanada Power Corporation, EH-1-96, Application for an international power line, Reasons for Decision dated January 1997 at pp. 9-11.

[22] (1961), 34 W.W.R. 13, Man. C.A. *("Parkhill")*

[23] [1947] D.L.R. 195 *(sub nom Zwicker, Re)*, N.S.S.C.

Trans Mountain's Position

Trans Mountain submitted that the Board has the jurisdiction to interpret right-of-way agreements and to find that the transportation of condensates is permitted by an agreement for the transportation of oil.

Counsel submitted that the provisions of the Act make it clear that it was intended by Parliament that the Board exercise jurisdiction with respect to land rights associated with regulated pipelines and listed four examples of this. The definition of pipeline in section 2 includes "...real and personal property and works connected therewith". Secondly, when issuing a certificate of public convenience and necessity under Part III of the Act, the provisions on pipeline location and requirements for a plan, profile and book of reference require consideration of land rights. Thirdly, Part V of the Act contains extensive provisions respecting land rights, specifically, the powers of a pipeline company in section 73 and the right of entry provisions in section 104. Finally, section 112 permits the Board to regulate the manner in which a landowner may encroach on the pipeline right of way. Considering these sections together with the broadly defined jurisdiction in section 12 makes it clear that Parliament intended the Board to exercise jurisdiction over land rights associated with regulated pipelines.

The extent to which the exercise of the Board's jurisdiction may properly affect property and civil rights within a province has been considered in the context of tolling matters. The Court found in *Northern & Central Gas Corporation* v. *Canada (Attorney General)*[24] that the fact that the implementation of the powers of the Board will affect property and civil rights is no objection to the validity of the Act. Trans Mountain referred to *Saskatchewan Power Corp.* v. *TransCanada Pipelines Ltd.*[25] as a court finding of a similar conclusion. In that case, the Court held that the Board's power to interfere with an existing contact must be necessarily inferred in order to accomplish the regulatory purpose of the Act.[26]

With respect to the question of whether the Board's authority to adjudicate on land rights extends to agreements predating the Act, it was submitted that the date of execution of the agreement does not curtail the Board's authority. This issue was considered in the *Northern & Central* and *Saskatchewan Power* cases. In both situations the contract being considered predated the legislation. The court found that this did not offend any rule or presumption against the retroactive application of legislation as the contracts are being applied prospectively.[27]

Trans Mountain argued that in this case, the Board has the jurisdiction to adjudicate on existing land use agreements, including those signed before the Act came into force, with the ruling to take effect prospectively.

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[24] (1971) 4. W.W.R. 413, F.C.T.D. *("Northern & Central")*

[25] (1988), 56 D.L.R. (4th) 416, Sask C.A. *("Saskatchewan Power")*

[26] Ibid., at 436.

[27] *Northern & Central, supra*, footnote 24, at 432; *Saskatchewan Power, supra*, footnote 25, at 437.

Views of the Board

The Board's only direct authority in the Act with respect to land acquisition agreements is to ensure that the provisions of section 86 are included in any new agreements that are brought before the Board.

The Board's power under paragraph 12(1)(b) is limited to determining any matter

> where it appears to the Board that the circumstances may require the Board, in the public interest, to make any order or give any direction, leave, sanction or approval *that by law it is authorized to make or give....* [emphasis added]

Since the Act does not specifically authorize the Board to make a determination on easement agreements, one must turn to common law to find whether such power exists collaterally to the Board's other powers.

A review of the case law in the area and the arguments presented by parties to the proceeding shows that the Board has the authority to adjudicate on and even affect contracts when such consideration is necessary for, and the result is incidental to, the examination of a matter within the Board's jurisdiction.[28]

The Board is of the view that a ruling on the Easement Agreements is necessary in this case in order to determine whether the facilities will be used and useful in reversed mode, given the unique situation that the facilities have already been built and the Easement Agreements were signed long ago.

Whether an agreement was signed before or after the Act came into force is irrelevant with respect to the Board's jurisdiction to adjudicate on it. The date of signing the contract will not affect the Board's jurisdiction to examine the contract, but only what law should be applied when interpreting that contract, be that by the Board or by a court.

The Board wishes to note that whether or not it has jurisdiction, it is clear that parties to an agreement would be able to seek resolution of any dispute involving these contracts in court. The Board clearly does not have exclusive jurisdiction over the interpretation of easement agreements. The courts' jurisdiction is broader and different from that of the Board, which is limited, as has been indicated in these Reasons.

5.2.3 Adequacy of Existing Easement Agreements

OPLA's Position

OPLA did not specifically address the issue of whether the Easement Agreements authorize the transportation of the products proposed by IPL. However, OPLA stated that it does not seem

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[28] See for e.g. *Saskatchewan Power, supra*, footnote 25; *TransCanada Pipelines Limited* v. *National Energy Board* [1987] 2 W.W.R. 253.

reasonable to require landowners to accept recent changes to the Act, such as section 112 limiting landowners' activities on their property, while requiring adherence to Easement Agreements signed in 1957 under the *Pipe Lines Act*. It was pointed out that perhaps the most beneficial clause to the landowners in the current Act is paragraph 86(2)(d), providing the landowners indemnification from all liabilities. Parliament could not have intended to put landowners in the unprotected situation that they find themselves in today.

OPLA argued that the Board has the authority to require IPL to obtain new easement agreements from IPL Line 9 landowners before granting IPL permission to reverse Line 9 and requested that this be included as a condition of approval.

Mr. Kozowyk's Position

Mr. Kozowyk suggested that, should the Board decide that it has the authority to rule on agreements, there is a problem with agreements entered into before the formation of the Board. None of these leases meet the requirements of subsection 86(2) and specifically the requirement to have periodic payments instead of a lump sum payment to landowners.

With respect to whether the Easement Agreements signed with landowners provide for the transportation of the products proposed by IPL, Mr. Kozowyk argued that condensate is not oil or a product of oil. He referred to the case of *Borys* v. *Canadian Pacific Railway*[29] as the best discussion of the definitions relating to various hydrocarbons. In his view, this case stood for the proposition that where a particular vernacular meaning is attributed to words under circumstances similar to those in which the expression is to be found, the vernacular meaning must prevail over the scientific.[30]

It was noted that condensate comes from natural gas and to a large degree is made up of pentanes. After providing some discussion of the industry meaning of the terms in question and the provincial regulatory scheme and definitions, it was pointed out that a landowner living in Ontario is not likely to have common knowledge of the industry definitions. For this reason, it can be presumed that the vernacular meaning would prevail. Condensate would be thought of as a product that condenses from a gas and therefore would not be thought of as oil. "Oil and its products" would be considered to mean motor oils and greases to the lay person. The Board should also consider that the definitions of items in the Agreements should be those definitions in use at the time of the signing of the Agreements and those used by the parties signing the Agreement. Therefore, the leases do not include the right to ship condensate but are limited to "oil and its products".

IPL's Position

IPL noted that the granting clause of the Line 7 Easement Agreement confers the right "to construct and operate a pipeline or pipelines for the transmission of oil and its products". This indicates that there could be multiple pipelines constructed and different pipelines could carry different forms of "oil and its products". It relied on the reasoning in the Board's decision with respect to the Line 8

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[29] [1953] A.C. 217 *("Borys")*

[30] *Ibid.*, at 223.

facilities[31] for the interpretation of that phrase. Counsel noted that the same products that have always been transported on Line 9 would continue to be moved, only in a different direction.

IPL anticipated that the argument of those opposed to the movement of condensate would be that condensate is the liquid component of natural gas as found in a reservoir, and therefore is a gas product rather than an oil product. It was noted that the products to be transported in line 9 are all liquid hydrocarbons and are transported under low vapour pressure pipeline conditions[32]. As well, they are unrefined and hence, crude. Since 1952, the legislation governing interprovincial pipeline construction, both the *Pipe Lines Act* and the *National Energy Board Act*, has defined oil to mean liquid hydrocarbons. Therefore, condensate is clearly oil.

Reference was made to the dictionary meaning of "condensate" as being the product of condensation. "Condense" means "to reduce from the form of a gas or a vapour to a liquid or (rarely) a solid condition". Therefore, "condensate" is a product that can be either gaseous or liquid, depending on the conditions. If looking for a definition other than dictionary meaning, it was suggested that the best definition could be found in Alberta's *Oil and Gas Conservation Act*[33] which states that condensate "...is liquid at the conditions under which its volume is measured or estimated...."

IPL argued that to hold that one type of oil that is transported as a liquid is a gas simply because it may have originated in a reservoir under a gaseous form would make no sense in the context of regulating the duties of the oil pipeline operator versus the gas pipeline operator, nor in the context of the facility requirements to carry this product.

It was suggested that *Borys*[34] shows that industry practice at the time of that case was that condensates were considered to be part of the petroleum that is produced, as opposed to the gas that is produced. *Spooner Oils Limited* v. *The Turner Valley Gas Conservation Board*[35] shows that the industry practice going back to the 1930s was to treat condensate as a liquid.

Trans Mountain's Position

Trans Mountain referred to the definitions of "oil" and "gas" in section 2 of the Act to answer the question of whether the existing Easement Agreements authorizing the transportation of oil will encompass the transportation of condensates. It noted that oil is defined as any hydrocarbon or mixture which is not gas and that gas is a hydrocarbon or mixture that exists in a gaseous state at standard atmospheric temperature and pressure. It noted that the definitions of these commodities is based on their physical characteristics and not on the substance from which they are derived or produced. The source of hydrocarbon material is irrelevant to its classification as oil or gas.

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[31] *Supra*, footnote 17, at pp. 27-31.

[32] In order for a product to be transported in a low vapour pressure ("LVP") pipeline, the product must meet certain physical characteristics according to CSA standards. If any of the hydrocarbons being transported exceeded the maximum vapour pressure allowed, they would have to be transported on a high vapour pressure ("HVP") pipeline. With respect to CSA Z662, design requirements with respect to valve spacing, pipe joints and notch toughness, among others, are different if the product being transported in a pipeline is an LVP or an HVP fluid.

[33] R.S.A. 1980, c. O-5, paragraph 1(1)(d.1).

[34] *Supra*, footnote 29.

[35] [1933] S.C.R. 629.

Counsel derived support for this view from the provisions of section 130 which allow the designation of substances as either a gas or an oil product.[36] It was noted that this section does not require that a substance derived from a gas be designated as a gas product or that a substance derived from oil be designated as an oil product. The source is only relevant in that the substance must be derived from a hydrocarbon, be it gas, oil or coal.

Views of the Board

The second issue before the Board relating to easement agreements is whether the existing Right-of-Way and Easement Agreements allow for the transportation of the hydrocarbons as applied for by IPL. It is clear that the commodity in question is condensate as the other hydrocarbons to be transported are obviously oil and were not questioned by any of the parties. Therefore, the question to be determined is whether the phrase "oil and its products" in the Easement Agreements includes condensates.

This issue is almost identical to that before the Board on easement agreements in the Line 8 proceeding. There, the Board had to determine whether the phrase "oil and its products" is broad enough to include the refined products to be shipped on Line 8. The Board confirms the reasoning and conclusions in that decision[37].

In making the determination of whether condensate is an oil, it is appropriate to examine the definitions in the *Pipe Lines Act* and the *National Energy Board Act*. The Board is of the view that the proper legislation to be used in interpreting the wording in the agreements is the *Pipe Lines Act*. Given that this was the legislation in place when the agreements were signed, it is reasonable to assume that the meaning used by the parties was the same as that in the *Pipe Lines Act*. In that Act, oil was defined to mean "any liquid hydrocarbon". This is a very broad definition and in the Board's view would include condensate.

Although condensate may, in conditions other than when it is being transported, be in a different form, it is in a liquid form when being transported. The *Pipe Lines Act* does not, as the *National Energy Board Act* does, define the temperature and pressure at which the hydrocarbon is to be measured to determine whether it is gas or oil. However, both the *Pipe Lines Act* and Easement Agreements deal with the *transportation* of hydrocarbons, so it is reasonable to assume that condensate in its liquid form was in the minds of those signing the agreements.

If the Board has erred in the application of the *Pipe Lines Act*, the Board is of the view that the definition of oil in the *National Energy Board Act* would also include condensate. The definition of oil is very broad and excludes only those hydrocarbons

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[36] 130.(1) The Governor in Council may make regulations for carrying the purposes and provisions of this Act into effect and may, by those regulations, designate as an oil product or as a gas product any substance resulting from the processing or refining of hydrocarbons or coal if that substance

(a) is asphalt or a lubricant; or

(*b*) is a suitable source of energy by itself or when it is combined or used in association with something else.

[37] *Supra*, footnote 17 at pp. 20-31.

that would fall under the definition of gas, that is, those in a gaseous state at standard temperature and pressure.

The Board is therefore of the view that condensate is included in the term "oil and its products" in the Easement Agreements and that IPL has the authority to transport the hydrocarbons included in the application.

Although OPLA argued that the Board has the authority to require IPL to obtain new easement agreements, it did not provide any authority for this. The Board is of the view that in order to require new agreements it would have to find that the current agreements are invalid. This is not the case.

With respect to Mr. Kozowyk's argument that the agreements do not comply with the requirements of subsection 86(2), the Board again confirms the Line 8 Decision. In order for legislation to be applied retroactively, such retroactivity must be specifically stated. There is no requirement in the Act that section 86 apply to easement agreements signed before that section came into force.

Chapter 6

Economic Feasibility

6.1 Economics of Line 9

The economic feasibility of a pipeline project is a broad concept that is often dependent on a multitude of factors. In the Line 9 proceeding, evidence was introduced on markets, supply, oil prices and differentials, the impact of the project on markets and producer netbacks, tolling and the valuation of Line 9.

In order to determine when the Line 9 Reversal Project should proceed, a Trigger Mechanism was negotiated between CAPP, the Refiners and Sunoco as part of the CRA. It was agreed that if the Ontario landed Canadian light sweet crude oil price was higher than the Ontario landed Brent crude oil price for any five of seven consecutive months, then, subject to Board approval, the Refiners and Sunoco would have the right to direct IPL to proceed with Line 9 reversal. This mechanism assumed a Line 9 toll calculated on a stand-alone basis using a throughput of 39 680 m^3/d (250,000 b/d). The Trigger Mechanism was satisfied in August 1996 and led to IPL's subsequent application to the Board.

Proponents of the Line 9 reversal argued that the market is working, resulting in the Trigger Mechanism being activated, and that the market determined that the present is the correct time for Line 9 reversal. In contrast, parties opposed to the reversal of Line 9 at this time argued that, for various reasons, the market was distorted and that this distortion would make it profitable for some parties to reverse Line 9 at the expense of others.

Between January 1995 and June 1997, the estimated landed price of Brent crude oil at Sarnia was less than the landed price of Canadian light sweet mixed blend ("MSW") in Sarnia in 15 of the 30 months, assuming a toll of $\$2.451/m^3$ ($0.389/bbl) on Line 9[38]. On a twelve-month rolling average basis, the differential favoured the landed price of Brent crude oil in 11 of the last 19 months.

IPL argued that the overriding public interest is in allowing competition to work. It is not in the public interest for the Board to act as a regulator of prices and netbacks or to use toll methodology, the level of the toll or access to transportation capacity to influence commodity prices. It urged the Board to focus instead on its mandate to regulate a monopoly transporter so that it does not charge more than it would in a competitive environment.

It was noted by IPL that, by signing the FSA, the Refiners have undertaken a significant financial commitment, that is, to meet IPL's revenue requirement for the first five years of the reversal. The existence of the FSA should establish that the proposed facilities are economically feasible.

The Refiners contended that the Board should be satisfied that the pipeline will be utilized. Their forecast was to ship approximately 22 220 m^3/d (140,000 b/d) in 1998 and in excess of 31 750 m^3/d (200,000 b/d) post-1998. The Refiners are large, sophisticated companies and each believes that the

[38] IPL's estimate of the stand-alone toll on Line 9 at the time the Trigger Mechanism was negotiated.

price of offshore crude oil will become more attractive compared to western Canadian alternatives in the future.

According to the Refiners, by signing the FSA, they have agreed to backstop more than $150 million in capital and operating costs, should the project proceed. This is evidence of their confidence that the pipeline will be used. It was noted that the IPL Natural Gas Liquids ("NGL") Injection Facilities[39] and Express[40] Decisions are examples where the Board has accepted the execution of facility support agreements as evidence that facilities would be used and useful.

It was acknowledged by the Refiners that there will continue to be months where MSW is less expensive than Brent crude oil at Sarnia, but they argued that over time this will become less frequent. The continued seasonal fluctuations would not translate into seasonal use of Line 9. A sustained year-round advantage for Brent crude oil is not a prerequisite for the Refiners to achieve savings from utilizing Line 9. The Refiners argued that the Board need not choose one forecast over another, but instead should let the market work.

The ADOE and Producers noted that if the application is approved as filed, the Refiners would have the option to wait until favourable pricing differentials are achieved prior to commencing deliveries. In this post-purge, pre-reversal period, the Refiners face no cost exposure until deliveries commence as the costs of Line 9 would be recovered on an integrated basis with the Older System. Therefore, the existence of the FSA is meaningless in demonstrating economic feasibility. The true level of the Refiners' confidence must be measured by the amount of immediate risk they were prepared to bear under the FSA.

It was submitted by the ADOE and Producers that IPL has a burden to provide evidence in support of all of the matters for which it applied. In particular, IPL was responsible for demonstrating that future price differentials would favour the importation of foreign crude oil via Line 9 over western Canadian crude oil. As IPL did not provide sufficient evidence to substantiate its position, it is therefore not possible for the Board to conclude that pricing differentials justify Line 9 reversal.

The ADOE and Producers stated that appropriate price signals should form the basis for reversal, not distorted signals caused by cross-subsidies. Reversal should occur no earlier than the point in time when the Refiners would be prepared to pay the all-in, stand-alone toll. The acceptance of a full take-or-pay obligation would be a true demonstration of their belief that offshore crude oil via Line 9 would result in favourable price differentials. The lack of stand-alone tolling, which would include all associated costs, has the effect of lowering the economic hurdle for the Refiners. Once Line 9 is reversed, the Refiners would be in a position to commence Line 9 deliveries earlier than would otherwise be economically justified.

It was also stated by the ADOE and Producers that the Refiners are gaining the benefit of a fully depreciated Line 9, which causes a distortion of pricing signals. The economics of Line 9 reversal are enhanced by the lowering of the hurdle from what would otherwise face the Refiners through all-in,

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[39] Interprovincial Pipe Line Company, a division of Interhome Energy Inc., GHW-5-90 and RH-3-90, Application for facilities to accumulate and inject natural gas liquids and for the toll design applicable thereto and an application by the prospective shippers regarding conditions of access to the applied-for facilities, Reasons for Decision dated February 1991 ("IPL NGL Injection Facilities Decision").

[40] Express Pipeline Ltd., OH-1-95, Application for facilities and tolls, Reasons for Decision dated June 1996.

stand-alone tolls. The ADOE and Producers would not be opposed to the reversal of Line 9, provided that it occurred in response to undistorted price signals.

The ADOE and Producers submitted that the Board must, as part of its public interest mandate, weigh all of the potential impacts which could arise out of Line 9 reversal and not simply focus on potential benefits to the Refiners. The evidence of Purvin & Gertz, Inc. ("Purvin & Gertz") stated that premature reversal of Line 9 would cause displacement of western Canadian crude oil from the Ontario market resulting in price discounts. Further, the price discounting concern was confirmed by recent pricing history. The ADOE and Producers noted the apparent inconsistency between IPL's approach to the Line 9 proceeding, where IPL argued that it is not in the public interest to use regulatory jurisdiction to maintain oil prices, and the Express proceeding where IPL argued that the Board should take into account the price impact on western Canadian crude oil that would result from the construction of the Express Pipeline.

Ontario indicated that if an Ontario refinery shuts down, it hurts the provincial economy by causing job loss, loss of future investment and lower economic activity. In addition, there would also be market loss for western Canadian crude oil. Ontario stated that the impact of Line 9 reversal on the rest of the market would be minimal when IPL's efforts to mitigate apportionment were taken into account.

Views of the Board

When assessing the economic feasibility of an application, the Board must satisfy itself that the applied-for facilities will be used and useful over the life of the project which, on a depreciation basis, is 35 years. The Board considers the existence of the FSA and the willingness of the Refiners to take on financial commitments to be evidence that the facilities will be used under the existing business conditions. While it realizes that there may be seasonal variations in price differentials, the Board is satisfied that the economic interest of the Refiners will result in high utilization of the reversed facilities during the Primary Term. The Board is also satisfied that future market conditions will result in high utilization rates beyond the Extended Term. The Board does not see its role as including the forecasting of price differentials to determine the feasibility of a project. Instead, it believes that market participants are in the best position to make these evaluations.

6.2 Need for Reversal

In its application, IPL indicated that in order for the Ontario refiners to remain competitive with their eastern Canadian and mid-U.S. counterparts, they require access to lower-priced crude oil. It proposed that the Line 9 reversal would provide the safest and most cost-effective transportation system for the delivery of offshore light crude oil to central Canadian refineries.

Western Canadian light crude oil competes with U.S. and offshore light crude oil at Chicago. IPL noted that the price differential of light sweet crude oil at Sarnia now shifts on a seasonal basis in favour of offshore crude oil, particularly Brent crude oil, over U.S. and Canadian supply. Due to their location downstream of Chicago, Ontario refiners must compete for supply with upstream refiners.

IPL stated that without Line 9 reversal, the refiners in Ontario will have to pay a higher crude oil price to secure supply, while refiners on the U.S. East Coast that compete in the Ontario refined product markets can utilize waterborne crude that will not experience the same transportation related price increases.

IPL noted that inland refineries have historically processed light crude oil from western Canada, Texas and Oklahoma. Production of light crude oil from these areas is in decline and will soon fall short of the demand from the inland refineries, while globally the supply of light crude oil has been increasing. IPL indicated that reversing Line 9 would provide another source of supply for Ontario refiners.

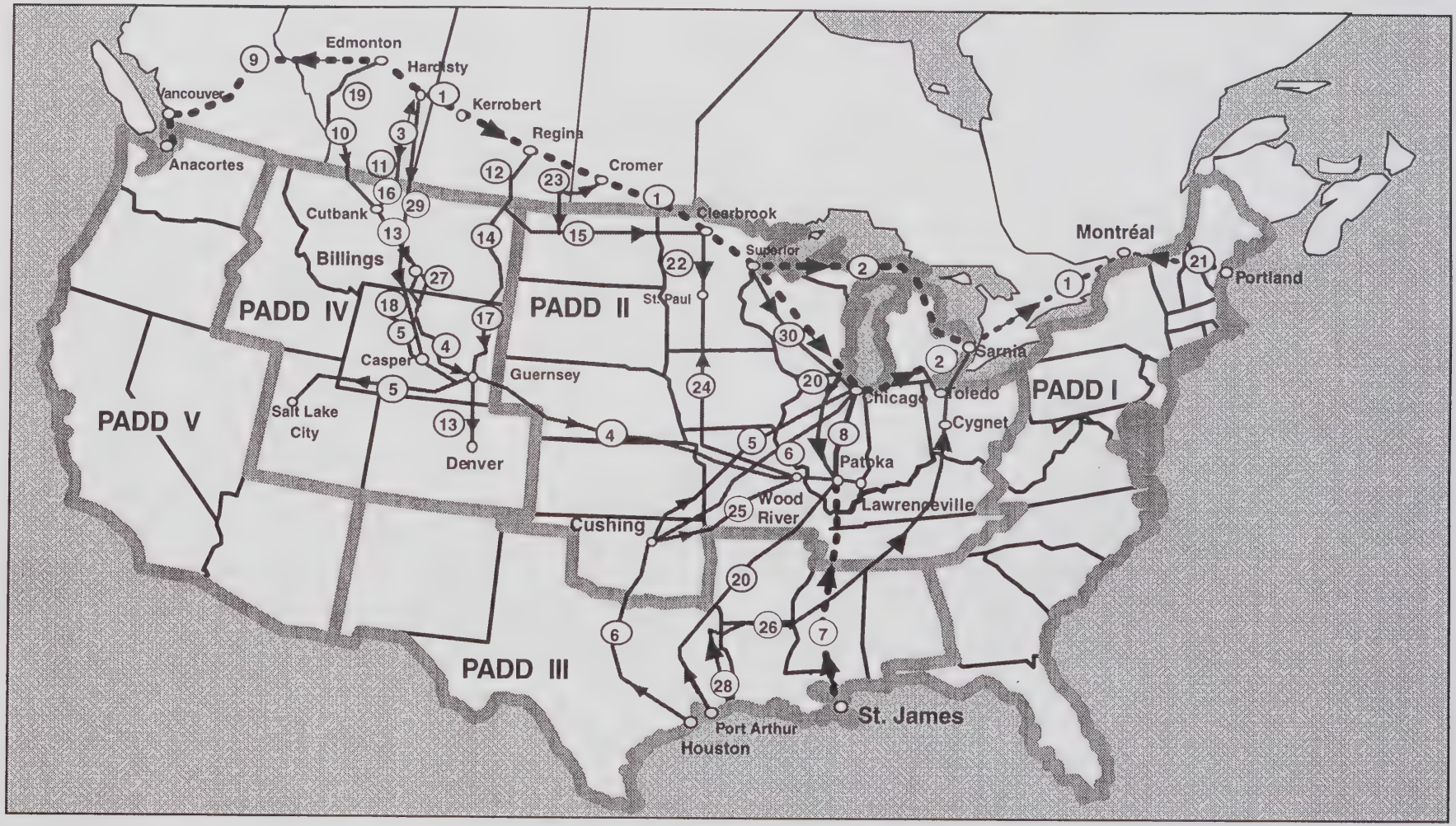
The Refiners stated that they compete in a global marketplace. Their competitors are generally able to secure crude oil feedstock at a lower landed price. The Refiners argued that Line 9 reversal would be a defensive mechanism, which would allow them to reduce feedstock costs so that they could maintain their competitive position. Ontario refiners have worked hard to lower operating costs and, absent refinery reconfigurations, the only other means of increasing profitability is to reduce feedstock costs. If a reversed Line 9 had been available commencing April 1996, the Refiners would have saved between US$17-20 million in crude oil costs.

Suncor indicated the many arguments put forward by IPL about the need for the reversal. It questioned how IPL could argue that the reversal is needed and still require an FSA before it would proceed with an application for reversal. Suncor suggested that this could indicate that IPL does not believe its assertions about the need for the reversal.

Unocal Pipeline Company ("Unocal") submitted that IPL's evidence has not established the need and necessity for the reversal of Line 9 and, therefore, the reversal is not in the public interest. It noted that IPL's evidence compared the cost of Brent crude oil assuming minimum tolls on the Portland-Montreal system and Line 9 versus the maximum tolls for the U.S. infrastructure. If the applied-for toll of $\$3.195/m^3$ ($0.508/bbl) was used for Line 9 and the proposed incentive toll was used for Unocal, then the U.S. system delivery costs would have been equal to or lower than Line 9 for the first six months in 1997.

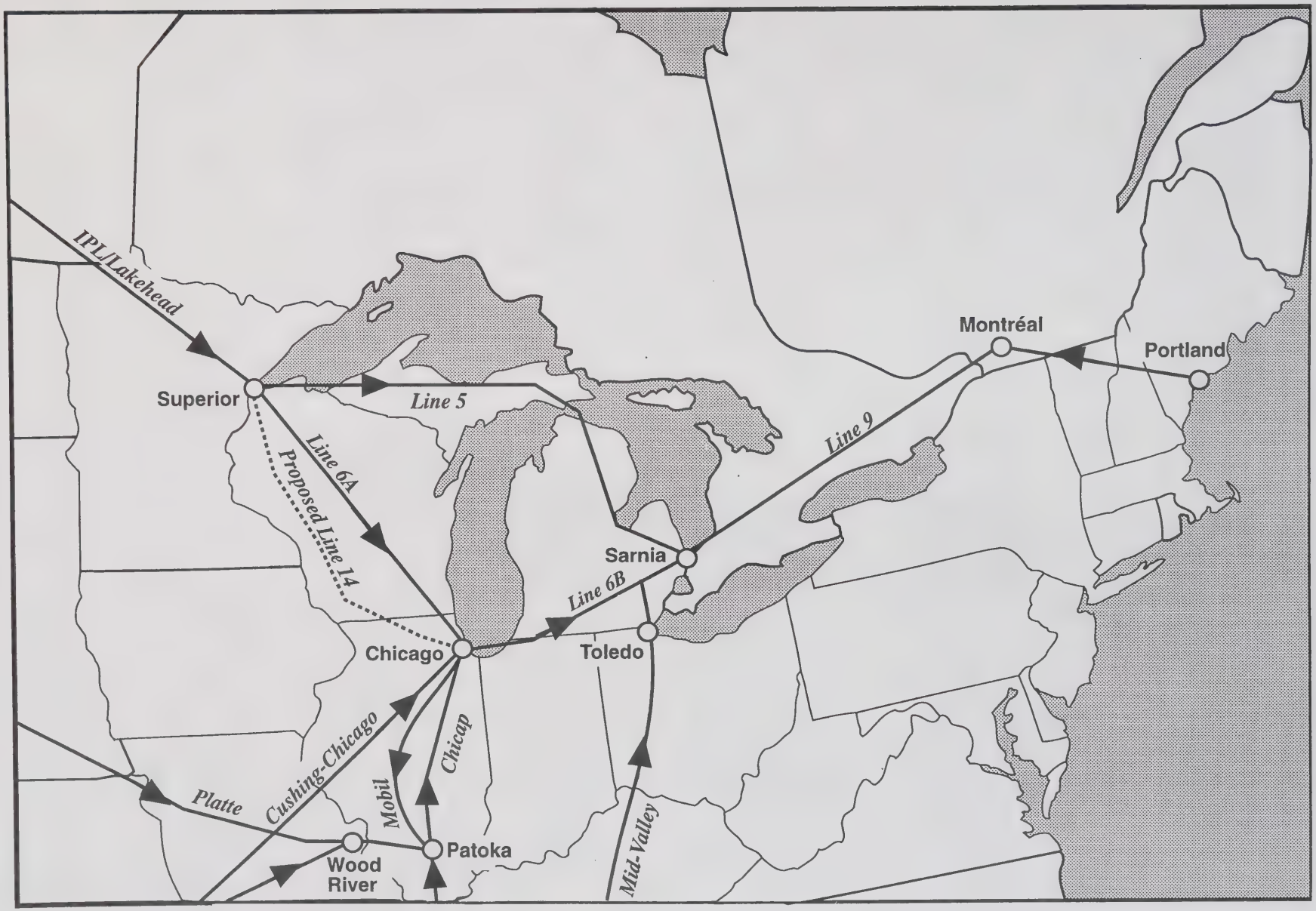
The ADOE and Producers noted that the FSA protects the Refiners against adverse price differentials in the early years, because revenue shortfalls of up to $12.5 million would be passed on to the Older System. The Refiners also have the option of waiting until favourable pricing differentials are achieved before commencing deliveries and being responsible for Line 9's revenue requirement. The ADOE and Producers argued that the "bullishness" expressed by the Refiners about the need for the reversal is meaningless. The need for Line 9 reversal would be best determined when IPL and the Refiners are prepared to assume all of the financial risks associated with causing it to be reversed.

Figure 6-1
Canadian and U.S. Crude Oil Pipelines



1. Interprovincial Pipe Line Inc.
2. Lakehead Pipe Line Co. LP9.
3. Bow River Pipeline
4. Platte Pipeline Co.
5. Amoco Pipeline Co.
6. ARCO Pipeline Co.
7. Shell Pipeline Corp. (Capline)
8. Chicago Pipeline Co. (Chicap)
9. Trans Mountain Pipe Line Co.
10. Rangeland Pipe Line Co.
11. Murphy Oil Co. (Milk River)
12. Wascana Pipe Line Co.
13. Conoco Inc.
14. Texaco Pipe Line Ltd.
15. Portal Pipe Line Co.
16. Cenex
17. Butte Pipeline
18. Exxon Pipeline
19. Imperial Pipe Line Co.
20. Mobil Pipe Line Co.
21. Portland Pipe Line
22. Minnesota Pipe Line Co.
23. Westspur Pipe Line
24. Koch Pipelines Inc.
25. Shell Pipeline Inc.
26. Midvalley Pipe Line
27. Amoco/Conoco Pipeline
28. Sun Pipeline
29. Express Pipeline Ltd.
30. Proposed Lakehead Line 14

Figure 6-2
Crude Oil Pipelines (Great Lakes Region)



Views of the Board

When Line 9 was originally contemplated, it was recognized that at some future date it may be desirable to reverse the pipeline. There was consensus among all parties that the reversal of Line 9 was inevitable. The disagreement among parties focused on the appropriate time of the reversal.

The Board is of the view that there is a demonstrated need for the reversal at this time.

6.3 Supply for Facilities

IPL submitted that the evidence concerning the availability of sufficient supplies of Brent and other similar quality crude oil and the capacity of the Portland-Montreal system was uncontroverted. Production of North Sea crude oil was 1 033 400 m^3/d (6.5 million b/d) in 1996 and further increases are expected over the next several years. No party disputed the adequacy of supply for the reversed Line 9.

Views of the Board

Supply can be a concern particularly where a pipeline is being built to access a single landlocked basin. In this instance, however, a reversed Line 9 through the facilities of the Portland-Montreal system would be able to call upon global supply. The Board is satisfied that there is sufficient offshore light crude oil to supply a reversed Line 9.

6.4 Ontario Market for Offshore Crude Oil

A reversed Line 9 would provide an alternate source of supply for Ontario refineries. Ontario refineries currently have feedstock requirements in the order of 84 600 m^3/d (532,000 b/d). The estimated capacity of the five refineries owned by the Refiners is 73 500 m^3/d (462,300 b/d). Approximately half of this capacity utilizes light sweet crude oil.

IPL was confident that sufficient markets exist in Ontario for crude oil shipped on a reversed Line 9. IPL acknowledged that the pipeline has some risk of underutilization, especially in the early years, because it accesses world sources rather than an inland supply with few outlets and serves a limited market with alternate supply sources. For its part, IPL could not accept this commodity risk and required an FSA to proceed with the project. The FSA demonstrates the confidence of the Refiners in their forecasts of the price advantage in favour of importing Brent and other offshore crude oil by a reversed Line 9.

The Refiners indicated that the reversal is required as a defensive measure to maintain their competitive position. Their refineries compete in a global market with other refineries in Canada, the U.S. and abroad. These competitors are generally able to secure crude oil feedstock at a lower landed cost than Ontario refiners. The Refiners pointed to the Purvin & Gertz evidence which acknowledged the need for Ontario refiners to improve their profitability.

Ontario supported the Refiners' need to access offshore crude oil to maintain their competitive position and to enhance their viability.

Views of the Board

The Board is satisfied that an adequate market exists to absorb the full capacity of a reversed Line 9. Nevertheless, crude oil would still be required by Ontario refiners from other sources, including western Canada. The Refiners have demonstrated a willingness to use offshore supply to the extent that it can be delivered into Ontario at competitive prices.

6.5 Implications of Reversal

A reversed Line 9 would deliver offshore crude oil into a traditional market for western Canadian production. Therefore, the project has the potential to cause a reconfiguration of North American crude oil markets. This, in turn, has implications for the operation and adequacy of existing pipeline infrastructure. Any resulting impact upon deliverability through apportionment of pipeline capacity could ultimately affect the marketability, pricing and netback of all western Canadian crude oil.

6.5.1 Impact on Producers in Western Canada

IPL rejected the suggestion that the timing for the reversal of Line 9 should be linked to the completion of Line 14[41] by Lakehead Pipe Line Company, Inc. ("Lakehead"). In its view, the completion of Line 14 is unrelated to allowing competitive markets to work. IPL views the Board as a regulator of transportation tolls and facilities, not the regulator of crude oil prices or netbacks. Moreover, IPL suggested that it is not in the public interest to use Board jurisdiction to limit access to transportation for the purpose of maintaining crude oil prices.

IPL submitted that the ADOE and Producers are seeking to limit competition by restricting market access for the Refiners in order to preserve producers' netbacks. IPL suggested that when the differential is decidedly in favour of Brent crude oil, it will enter the Ontario market either through a reversed Line 9 or pipelines from the U.S. Gulf Coast. Denial of its application would not prevent or even delay the loss of market by Canadian crude oil because large volumes of imported crude oil are already entering Ontario through U.S. pipelines.

IPL noted that Lakehead expects Line 14 to be in service by 31 December 1998. It indicated that while the Illinois Commerce Commission ("ICC") denied Lakehead's application to expropriate land, this only meant either that easements must be negotiated or the pipeline would have to be re-routed. IPL asserted that there is no evidence that Unocal would use upcoming negotiations for the Mokena, Illinois tie-in to delay Line 14.

IPL argued that absent Line 14, there would be no incremental apportionment ex-Superior. It could ensure this by reconfiguring pipelines to handle equivalent volumes of western Canadian crude oil. This would be achieved by moving light crude oil from Line 5 to Line 6A and heavy crude oil from Line 6A to Line 5. In addition to markets in Chicago, any displaced volumes from the Ontario market would move through Line 5 to serve existing markets in Michigan that cannot otherwise be served. IPL would also use DRA in Line 5 to offset any lost capacity.

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[41] Line 14 is a 610 mm (24 inch) OD pipeline proposed by Lakehead to run from Superior, Wisconsin to Chicago, Illinois.

The Refiners stated that there is no relationship between commencement of service on Line 14 and the reversal of Line 9. They asserted that the need for pipeline infrastructure is the responsibility of the producers and pipeline companies involved. The Refiners do not want to be held responsible for planning and ensuring pipeline infrastructure is in place for other market participants. If a decision linked Line 9 reversal to Line 14 being in service, the Refiners would be penalized for decisions and circumstances over which they have no control or responsibility.

With respect to the CRA, the Refiners argued that the Agreement makes no mention of providing access to markets as a pre-condition to Line 9 reversal and that the Refiners would never have agreed to such a proposition.

The Refiners noted that since the fall of 1995, they have been paying record premiums for MSW compared to West Texas Intermediate ("WTI") crude oil at Chicago. The Refiners disagreed with the suggestion that the recent level of imports has had a negative impact on prices by pointing to the US$0.15-0.20/bbl premium of MSW over WTI. They suggested that the ADOE and Producers are seeking to preserve western Canadian producer access to this premium by delaying Line 9 reversal. The Refiners suggested that any price impact caused by Line 9 reversal would be the result of market forces at work.

In Ontario's view, the precise impact of this project is impossible to predict. Total crude oil production is increasing in western Canada and it is normal for pipeline capacity to lag behind production. It is not sound reasoning to force Ontario refiners to continue to use non-competitive supply.

CAPP indicated that the reversal of Line 9 would represent a significant change in the market, but expressed its belief that western Canadian producers could adjust. It noted that, since the CRA was signed, both IPL's System Expansion Program ("SEP") I and the Express Pipeline have increased access to markets for western Canadian crude oil. The CRA ensured that Line 9 would not reverse prematurely and that western Canadian crude oil would experience an orderly transition to new markets.

Alberta Energy Company Ltd., Anderson Exploration, Canadian Natural Resources Limited, CANPET Energy Group Inc., Husky Oil Operations Ltd., Northstar Energy Corporation, Poco Petroleums Ltd., and Rigel Oil & Gas Ltd. ("Other Producers")[42] argued that if Line 9 reversal were to take place without Line 14 being in service, incremental apportionment would occur on Lakehead's system. This would cause severe price discounts and shut-in of western Canadian crude oil production. A comparison of the consequences for producers against the purported benefits to the Refiners should convince the Board not to allow Line 9 service until western Canadian crude oil has adequate pipeline access to the PADD[43] II market.

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[42] The Other Producers are a group of companies that originally intervened in the group referred to as the ADOE and Producers but chose to withdraw their evidence during the proceeding rather than produce a witness.

[43] PADD refers to the Petroleum Administration for Defense Districts. These are geographic aggregations of the 50 states and District of Columbia into five districts defined by the Petroleum Administration for Defense in 1950. These districts were originally defined during World War II for the purposes of administering oil allocation. Geographically, the five districts are East Coast (I), Midwest (II), Gulf Coast (III), Rocky Mountain (IV) and West Coast (V).

Amoco Canada Petroleum Company Ltd. ("Amoco") and Mobil Oil Canada ("Mobil") questioned the ability of Lakehead to have Line 14 in service before January 1999. They pointed to Unocal's testimony that it will not consider negotiations until Lakehead has executed agreements with all other landowners and noted Lakehead's limited ability to avoid the Unocal right of way in the event of a dispute. They noted that Unocal opposed both Line 9 reversal and construction of Line 14 and suggested that Unocal has no incentive to negotiate with Lakehead.

Amoco and Mobil were concerned that IPL was not being realistic about the ability to switch crude oil between Line 6A and Line 5 because the volumes being displaced would be significant. They also expressed concern over contamination of light sweet crude oil, NGL and condensate on Line 5 if medium sour and heavy crude oil are shifted to Line 5.

Amoco and Mobil requested that Line 9 reversal be delayed until Line 14 is in service. Alternatively, they requested that a throughput limit of 22 200 m^3/d (140,000 b/d) be imposed on Line 9 until Line 14 is operational. In addition, they requested that the Board impose a condition on IPL that it be required to take the necessary steps to avoid contamination on Line 5.

The ADOE and Producers stated that reversal of Line 9 would have negative impacts on producers in western Canada which would outweigh the benefits to Ontario refiners. They commissioned a study by Purvin & Gertz which estimated that the reversal would create a surplus of western Canadian crude oil in PADD II, resulting in discounts from US$0.25-0.35/bbl in 1999. The discounts would be the result of a supply push instead of a demand pull into the market. Estimates of the impact of the reversal, without taking incremental apportionment into account, would have a net present value cost to producers in 1997 of $642 million compared to a net present value benefit for the Refiners of $402 million. The Purvin & Gertz study found that if Line 14 is not in service when Line 9 is reversed, the effects of reversal would be even larger. Approximately 7 950 m^3/d (50,000 b/d) of western Canadian crude oil may be discounted by $\$9.43/m^3$ ($1.50/bbl) if Line 14 is not in service. In addition, an equal amount may be shut in.

The ADOE and Producers argued that the impact on prices is already occurring in response to higher imports into Ontario, even though 70 percent of the imports from April to June 1997 were from U.S. domestic sources. Since May 1997, as the level of imports increased, term and spot prices have been increasingly discounted relative to postings and posted prices have been decreasing relative to WTI.

The ADOE and Producers doubted IPL's ability to mitigate the capacity problem on Line 6A by transferring medium sour crude oil to Line 5, given that IPL has always attempted to keep such crude oil out of Line 5 to avoid contamination. They challenged IPL's estimate of $250,000 for contamination costs and noted that there was no evidence that such a level of contamination would be acceptable to buyers.

Views of the Board

The Board notes that there was substantial evidence submitted during this proceeding on the potential impact on western Canadian producers. The reversal of Line 9 may have some negative impacts for these producers. Nonetheless, the completion of IPL's SEP I and the start-up of the Express Pipeline have allowed western Canadian producers to access new markets and increase their penetration of existing ones.

If Line 9 is reversed, western Canadian producers will seek alternate markets for their crude oil which is displaced by the new westwards flow. The impacts on producers will depend upon the actual volumes of offshore crude oil moving into Ontario through Line 9 and possibly other pipelines, the ability of new and existing markets to absorb additional volumes of western Canadian crude oil and the availability of pipeline capacity for such oil to reach those markets. None of these factors is capable of finite determination at this time.

With respect to Lakehead's Lines 5, 6 and 14, the Board notes that these pipelines are outside its jurisdiction. The Board is confident, however, that IPL and Lakehead will, if necessary, adjust the operation of Lines 5 and 6 to mitigate any delay in the start-up of Line 14. Accordingly, the Board is not prepared to condition any approval on the basis of the commencement of Line 14 service.

6.5.2 Impact on Quebec Refiners

The two refineries located at Montreal are owned by Petro-Canada and Shell, both of which also own refineries in Ontario and are participating in the Line 9 Reversal Project. Montreal refineries currently process 35 000 m^3/d (220,000 b/d) of feedstock. This is supplied primarily by the same Portland-Montreal system that will also supply the reversed Line 9. Capacity on this system is currently 43 600 m^3/d (275,000 b/d) and could be expanded to 83 300 m^3/d (525,000 b/d) in 1999.

IPL foresaw benefits for refiners in Quebec from the Line 9 reversal. Refineries in Montreal would enjoy a toll advantage for offshore crude oil over refineries in Ontario. Montreal would become an energy crossroad with higher volumes, increased security of supply and improved operating flexibility for its refineries.

Quebec acknowledged that Montreal refineries would benefit from reduced tolls on the Portland-Montreal system and increased inventories and flexibility in supply possibilities. Moreover, if an emergency required Line 9 to be re-reversed, the pipeline would have linefill in place to begin deliveries. Nonetheless, Quebec was concerned that the reversal represented a loss of relative competitive advantage for Montreal refineries compared to Ontario refineries. It noted that while tolls on the Portland-Montreal system were expected to be reduced by US$0.08-0.10/bbl for Montreal refineries, the savings in the cost of offshore supply for Ontario refineries would be US$0.25-0.45/bbl.

Ontario noted that Montreal refineries would benefit from lower tolls on the Portland-Montreal system. Moreover, because they were located upstream of the reversed Line 9, Montreal refineries would always enjoy lower costs for offshore supply than Ontario refineries.

Views of the Board

The Board notes that the reversal of Line 9 will reduce the tolls on the Portland-Montreal system, will mean that Montreal refiners will always enjoy a toll-cost advantage over Ontario refiners in respect of westwards-flowing crude oil and will provide other benefits to Montreal refiners.

6.6 Timing of Reversal

The CRA which set out the Trigger Mechanism was negotiated between CAPP, the Refiners and Sunoco and became effective 1 January 1996. It also stipulated that the Line 9 reversal would not occur prior to 1 January 1998 so that IPL's SEP I expansion and the Express Pipeline would be in place. As a result, IPL proposed an in-service date for the reversed Line 9 of 1 April 1998. During the proceeding, this date was revised to 1 July 1998.

IPL argued that proposals to delay the reversal or to restrict throughput would only limit the Refiners' access to Brent crude oil. Further, the ADOE and Producers' suggestion that the timing should be linked to a hypothetically revalued rate base was unacceptable to IPL.

The Refiners agreed that Line 9 should be reversed as soon as possible and noted that the reversal was not a new idea, as it had been planned and provided for since the inception of the pipeline.

CAPP noted that producers have benefitted from the timing provisions of the CRA. As well, the CRA allows producers greater certainty and the ability to respond to the reversal.

Suncor suggested that the April 1998 in-service date was an estimate based on when the regulatory process was expected to be complete. It noted that the date has slipped to at least July 1998 and perhaps beyond. Suncor considered the desire to maintain the April 1998 in-service date to be an artificial deadline which led to the abandonment of the original plan of a two-phased application process.

The ADOE and Producers disputed the timing benefits of the CRA. They argued that the timing of the reversal had not been delayed by the CRA because the Trigger Mechanism was satisfied by an abnormally steep backwardated market in 1996. They also indicated that the 1998-99 volume phase-in was not related to the CRA but was the result of capacity restrictions on the Portland-Montreal system.

An appropriate test suggested by the ADOE and Producers would have the Board determine if the Refiners are prepared to pay an all-in, stand-alone toll if full take-or-pay obligations arose on the earliest date by which Line 9 reversal service could be available after receipt of a section 58 approval. In the ADOE and Producers' view, there is no evidence to show that the Refiners would be prepared to proceed on such a basis and therefore the application is premature. The Line 9 reversal should occur when IPL and the Refiners are prepared to share the risks among themselves and not pass them on to western Canadian producers.

Ontario submitted that the reversal should proceed without delay and noted that timing was negotiated by CAPP in the CRA. One of the major benefits to producers was the assurance that Line 9 would not be reversed prematurely, a benefit producers have already received under the CRA. In return, CAPP agreed to relinquish its right to oppose reversal when it was triggered under the agreement. Ontario took issue with the minority of producers who, having already received the benefit of the CRA, now wish to avoid other consequences of the agreement.

Views of the Board

The Board is of the view that the appropriate timing of the reversal is best determined by participants in the market. The Board believes that CAPP, which represents the majority of producing interests in western Canada, negotiated the Trigger Mechanism in the CRA in the best interests of its members. Further, the Board notes that the CRA became effective 1 January 1996 but reversal would only occur, at the earliest, two and a half years later. During this period, IPL's SEP I and the Express Pipeline commenced service allowing producers access to new and existing markets. The completion of IPL's SEP II expansion will further enhance producers' ability to increase their markets.

6.7 Transportation Alternatives

Unocal stated that there is no need to reverse Line 9 because sufficient U.S. infrastructure is in place to supply Ontario refiners with offshore crude oil. It indicated that imports of offshore crude oil through the U.S. Gulf Coast would allow for a more gradual displacement of western Canadian crude oil.

Unocal challenged IPL's contention that Line 9 provided a cleaner, faster, cheaper route for Brent crude oil. Unocal attributed any problem of degradation with shipments via the U.S. Gulf Coast to the operation of Lakehead's Line 6B. As to faster, Unocal noted that no evidence supported this as being a significant factor. As to cheaper, it cited IPL's estimate to demonstrate that the carrying costs of the extra inventory are relatively insignificant. With the addition of two tanks at Mokena for a cost of US$6 million, Unocal asserted that it could offer comparable service to that being proposed for Line 9.

Unocal submitted that the Portland-Montreal system required shipment by small tankers that is increasing in cost and could readily affect the economics of the reversal. It suggested that reduced tolls could readily be negotiated on U.S. pipelines. Moreover, the Unocal alternative does not require an FSA nor raise any concerns about access, open season and tolling.

The Refiners indicated that they were aware of the alternatives but had made their choice in deciding to backstop Line 9.

Views of the Board

The Board notes that the Refiners considered these alternative U.S. pipelines in their decision-making and opted to support a reversed Line 9. If economic, the Refiners could utilize the U.S. pipeline network in the future; the reversal of Line 9 would not preclude this option.

Chapter 7

Priority Access

7.1 Common Carrier Obligations

Subsection 71(1) of the Act states:

> [s]ubject to such exemptions, conditions or regulations as the Board may prescribe, a company operating a pipeline for the transmission of oil shall, according to its powers, without delay and with due care and diligence, receive, transport and deliver all oil offered for transmission by means of its pipeline.

While section 71 does not specifically refer to common carriage, the Board has repeatedly noted that this section most closely relates to the common law duties of a common carrier pipeline.[44]

IPL argued that it is meeting its common carrier obligations as all parties were given an equal opportunity to contract for long-term, secure access to Line 9 and potential shippers who chose not to enter into a long-term transportation service agreement did so with the full understanding that they would not receive the same service extended to contract shippers. These were the criteria set out by the Board in the Express Decision.. It was noted that as far back as 1991 in the IPL NGL Injection Facilities Decision, the Board found that priority access could be granted without infringing on common carrier requirements.

It was submitted by IPL that the Board has never declared that meeting common carrier obligations would require an open season process, complete with a fully formed project along with transportation contracts, final tolls, and pro forma rules and regulations respecting the conditions of service. Nor has the Board stated that a common carrier must build excess capacity into projects if it seeks to offer priority access to initial shippers.

The Refiners argued that the situation before the Board is consistent with IPL's common carrier obligations. Evidence was introduced to show that the FSA was not intended to provide any rights respecting Line 9 expansions. Any expansion capacity would be made available to all potential shippers on an equal and open basis.

Suncor argued that IPL has not provided sufficient justification to determine that its common carrier requirement was satisfied by the open season process.

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[44] See for e.g. IPL NGL Injection Facilities Decision, *supra*, footnote 39 at p. 22; Express Decision, *supra*, footnote 40 at pp. 25-27; PanCanadian Petroleum Limited, MH-4-96, Application for an order requiring Interprovincial Pipe Line Inc. to transport natural gas liquids, Reasons for Decision dated February 1997, at pp. 10-12 ("PanCanadian NGL Access Decision"); Federated Pipe Lines (Northern) Ltd., OH-3-96, Application for the Taylor to Belloy pipeline project, Reasons for Decision dated April 1997, at pp. 12-14; and Novagas Clearinghouse Pipelines Ltd., OH-2-96, Application for a liquids pipeline, Reasons for Decision dated May 1997, at pp. 12-14.

7.2 Open Season

In a letter dated 4 October 1996, IPL sought expressions of interest with respect to the reversal of Line 9 from shippers and interested parties. At the time, IPL was already negotiating with several potential shippers. Interested persons were invited to join the negotiations to determine the final design of the project and to establish appropriate back-stopping arrangements. These negotiations culminated in the signing of the FSA whereby the Refiners contracted for 100 percent of available pipeline capacity.

IPL had sought early input from those who were going to use the pipeline in order to design its facilities to serve their needs. It recognized that its open season process differed from that of Express. The differences in the IPL open season process versus that of Express were attributable to a different purpose and need. IPL was not so concerned with whether the project was economic, but rather with ensuring that anybody who had an interest in the project had the opportunity to be part of it.

As far as IPL was concerned, a new open season was unnecessary. If Suncor was interested in being a shipper, it could gain access to the 3 970 m^3/d (25,000 b/d) in expansion capacity associated with DRA.

The Refiners indicated that Suncor had the same opportunity as other participants. In their view, the fact that Suncor had chosen not to take the risk of proceeding did not mean that the open season process used by IPL was unreasonable. It would be unfair and discriminatory for Suncor to receive the same treatment as the Refiners, who had assumed a significant burden and risk in order to proceed. Moreover, they were concerned that a second open season would delay the project.

Suncor challenged the adequacy of IPL's open season process on the basis that it was neither fair nor reasonable. In Suncor's view, the open season was wholly inadequate as parties did not have sufficient information upon which to make an informed decision. Suncor wanted the new open season to be based upon certainty as to the approval process, tolling and requirements of an FSA. All of these elements were missing from IPL's original process. Suncor sought a process which would allow participation in the project on an informed basis with a reasonable level of risk.

Suncor requested that as a condition of approval, the Board instruct IPL to hold another open season for one month to bid for priority access on 31 750 m^3/d (200,000 b/d) of the 38 160 m^3/d (240,000 b/d) capacity of the reversed Line 9.

Suncor also recommended that 6 350 m^3/d (40,000 b/d) of capacity on Line 9 be reserved for common carriage access. The volume of capacity to be reserved was intended to be of a reasonable magnitude that would be worthwhile to other shippers. The specified volume would be sufficient to handle the cargo from two tankers per month, delivered through the facilities at Portland.

Suncor argued that its recommendations could be accommodated without onerous impacts on the Refiners. In response to the Refiners' concern regarding the inequity between their financial obligations and reduced priority access, Suncor noted that the Refiners could utilize the full capacity of Line 9 in any regard.

In Suncor's view, a new open season would not impair IPL's ability to reverse Line 9 under the CRA nor increase any of the risk to be borne by IPL.

The Refiners argued that Suncor had no satisfactory rationale to explain why they should backstop 100 percent of project costs yet only receive 83 percent of the capacity. The Refiners pointed out that they had undertaken considerable risk in backstopping the project. They noted that in the IPL NGL Injection Facilities, Express and Intercoastal Decisions, the Board had approved priority access under similar circumstances.

Views of the Board

Legislative Requirements

The requirements of section 71 of the Act are not absolute. The requirement to transport all oil received by a company is qualified by such exemptions as the Board may prescribe and according to the powers of the company. Thus, the Board could, if it found it necessary, grant an exemption from the requirements of section 71.

Section 67 of the Act, also of importance in the consideration of this issue, provides that "[a] company shall not make any unjust discrimination in tolls, service or facilities against any person or locality."

Taking these two sections together, it is clear that the Act requires an oil pipeline to offer service under the same terms and conditions to any party wishing to ship oil on its pipeline. This obligation to provide open access to an oil pipeline is fundamental to the granting of a certificate to construct and operate an oil pipeline.

Previous Board Decisions

The Board's recent history in dealing with the issue of common carriage commences with the IPL NGL Injection Facilities Decision. In that Decision, the Board found that

> so long as a pipeline gives all parties the same opportunity, at the same time, to participate in a project or avail themselves of a particular service, then that pipeline's common-carrier status is maintained.[45]

Therefore, the Board found that granting priority access to the facilities by the shippers who had signed the FSA would not be unjustly discriminatory.

In reaching that decision, the Board acknowledged that IPL was designing its facilities to match the contract volumes of the shippers backstopping the project, and that if priority access were not granted, any nominations from other shippers could reduce IPL's ability to accept and transport the contract volumes. Given that the proposed facilities could be readily expanded, the Board held that any new shipper wishing to transport NGL should wait until an expansion of the facilities, was completed. If such shippers wished priority access to the expanded facilities, they should be parties to an FSA which would justify such access.

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[45] *Supra*, footnote 39 at p. 22.

The facilities then applied for differed from the present case in that they were proposed to provide open access to the IPL system and would duplicate the existing facilities owned and operated by Amoco. All potential shippers were given an opportunity to participate in the joint project and no potential shippers complained about the open season process or lack of access. Priority or unapportioned access was granted only to the batch accumulation and injection facilities required to provide access to the common carrier pipeline. These facilities were unique, readily expandable and provided a service which was the subject of a surcharge.

In the Express Decision the Board found that the pipeline had not contravened its common carrier obligations under subsection 71(1) of the Act on the grounds that:

> [a]ll parties were given an equal opportunity to contract for long-term secure access to the system. Potential shippers who chose not to enter into a long-term transportation service agreement did so with the full understanding that they would not receive the same package of services extended to contract shippers.[46]

As was noted in the evidence of the current proceeding, the Express case differs from the situation at hand in many ways. Express was a new pipeline seeking to compete with established pipelines. Shipper commitments were required in order to finance the project. The Express Pipeline was not fully subscribed under the transportation service agreements; only 85 percent of the capacity was contracted. Express held a publicly advertised open season in two stages. During that open season process the terms and conditions and level of commitment required were known at the time the prospective shippers were approached and were considering signing an FSA. No potential shipper complained about either the open season process or the lack of access. The Board is also of the view that, while Express presented only one of several routes for western Canadian producers to reach markets, a reversed Line 9 represents a more direct route for Ontario refiners to access offshore crude oil. Line 9 would have lower levels of contamination and is strongly preferred by Ontario refiners.

The Board examined the common carrier obligations of a pipeline company in the PanCanadian NGL Access Decision and noted that

> compliance with the common carrier provisions is determined by a test of reasonableness, which is a relative concept. Section 71 of the NEB Act is consistent with this common law approach because it permits the Board to tailor the statutory obligations of both oil and gas pipelines to fit any unique circumstances which may exist. Thus, the Board can increase or decrease the statutory common carrier obligations of an oil, gas or commodity pipeline in respect of their carriage of oil, gas or another commodity.[47]

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[46] *Supra*, footnote 40 at p. 27.

[47] *Supra*, footnote 44 at p. 11.

In both the Federated and Novagas Decisions, the Board stated that it was mindful of the need to ensure that there is open public access to oil pipelines under its jurisdiction. The Board determined that it was satisfied that the companies had met their obligations set out in the Act and noted their assurances that they would accept any volumes delivered to the proposed pipeline under the terms and conditions of their pipeline transportation agreements.

Line 9 Reversal Project

The Board is of the view that many different arrangements could be made to ensure that an oil pipeline is complying with section 71 of the Act. In examining whether IPL has met those requirements, the Board had regard to two main considerations.

First, while IPL conducted an open season which granted all parties the same opportunity to participate in the Line 9 Reversal Project, the Board notes that there was considerable uncertainty as to whether the Board would approve the reversal, what the tolls would be, the costs to be underpinned by the FSA, timing of applications to the Board and reversal of the line. This was clear from the changes which have occurred in the project since that open season.

Second, the Board accepts the evidence that Line 9 represents the only direct connection to bring offshore crude oil to the Ontario market. In addition, it has low levels of contamination, and it was strongly preferred by the Ontario refiners. That, coupled with the indication that others may wish to ship on Line 9, leads the Board to the view that an opportunity to use the line should be made available to those potential shippers. Other than indicating that expansion facilities could be added, there has been no attempt to provide such service.

The Board recognizes that the Refiners accepted considerable risk in backstopping the Line 9 Reversal Project and that it was reasonable for them to expect priority access as a counterpart to this risk. IPL has clearly indicated it would not have proceeded with this project, without this support by the Refiners, as provided for in the FSA. However, in the Board's view, IPL's unwillingness initially to accept any risk associated with this project, hence requiring 100 percent backstopping by the Refiners, cannot override the rights of others to access the IPL system.

Given these circumstances, the Board is of the view that in order for IPL to meet its common carrier obligations under the Act, it will be required to keep available for nominations, on a monthly basis, 20 percent of the capacity available for the transmission of oil on Line 9 when it is operating in an east-to-west mode.

It is expected that this decision will necessitate revisions to the tariff as filed in this proceeding. The Board expects such a filing would reflect consultations between IPL and all potential shippers, not only the Refiners.

Extended Term

The Board recognizes that the tariff, as drafted, could result in the Refiners being granted priority access in the Extended Term. Basing access during periods of apportionment on historical shipments could deliver this result. While the Board has concerns on this matter it is of the view that there is not sufficient information on the record to make a determination on the appropriate manner of dealing with this concern. Therefore, IPL is directed to resubmit for approval that portion of the tariff dealing with apportionment in the Extended Term prior to that time.

Chapter 8

Toll Methodology & Financial Matters

8.1 Financial Matters

IPL stated that during the early stages of construction, it intends to finance the project using short-term debt through the IPL commercial paper programs. It intends to issue long-term debt at the appropriate time under the existing IPL trust indenture. Prevailing market conditions with respect to interest rates will impact on the timing of issue and the selected maturity for debt.

IPL intends to obtain equity capital through a combination of internally-generated funds and the issuance of treasury shares to IPL Energy Inc.

None of the interested parties questioned the proposed method of financing.

Views of the Board

The Board is of the view that IPL would not have difficulty financing the project.

8.2 Review of RH-2-91

IPL applied for a review of the RH-2-91 Decision, pursuant to section 21 of the Act, and for the approval of a tolling methodology which includes partially integrated tolls. The request for review was limited to allowing for the tolling arrangement as agreed to between CAPP, the Refiners and Sunoco. IPL argued that changed circumstances and new facts since the Decision, released in 1992, warrant varying the Decision to allow the Line 9 Reversal Project to proceed. It noted that the ongoing evolution of deregulation of oil markets has prompted a decision to reverse Line 9 and that pipeline regulation has been evolving to a more market-based approach.

Line 9 was not in service when the Board issued its RH-2-91 Decision. When it was reactivated in 1992 to ship crude oil for the Alberta Petroleum Marketing Commission, the Board ordered IPL to use an integrated tolling methodology for west-to-east service on Line 9. Shipments on Line 9 continued until 1996. Following an optimization study, Line 9A was integrated with the Older System, Line 8 was deactivated and Line 9B was purged.

In June 1996, IPL and the Government of Canada agreed to release each other from their rights and obligations under the Deficiency Agreement. IPL noted that the RH-2-91 Decision required Line 9 to be tolled on a stand-alone basis while idled. The Board had found that fairness required the Federal Government to be responsible for all costs of the pipeline when there was no throughput. However, the Federal Government no longer bears any financial responsibility.

IPL stated that the most important changed circumstance or new fact which has arisen since RH-2-91 is that negotiations were held between IPL, the Refiners and Sunoco, and CAPP. These negotiations resulted in a commercial agreement which has established a toll design acceptable to those parties. As

well, several parties[48] which opposed an integrated toll design in RH-2-91 are now supporters of the agreement which includes aspects of integration.

CAPP did not specifically address the issue of review, but did note that there have been changed circumstances and new facts with respect to Line 9 as the industry has evolved. One of the main reasons that CAPP negotiated with the Refiners and Sunoco and entered into the CRA was the ongoing deregulation of oil markets and prices.

The ADOE and Producers argued that there is no reason to vary the RH-2-91 Decision. They suggested that the only changed circumstance of any consequence since the Board issued its Decision is that CAPP, the Refiners and Sunoco have entered into the CRA. By this agreement those parties are attempting to force their commercial arrangements on others.

With regard to the question of whether the Board was bound by its Decision in RH-2-91, the Government of Ontario referred to Macaulay's *Practice and Procedure Before Administrative Tribunals*[49]. This states that agencies should strive for consistency between decisions, but they are not bound by earlier decisions. This guarantees flexibility and responsiveness. Therefore, each case needs to be considered on its merits. Counsel noted that the majority of producers, IPL and the Refiners are comfortable with the reversal of Line 9 and the proposed tolling methodology. It was submitted that level of agreement demonstrates that there are different circumstances than those apparent in RH-2-91 and would constitute a reason for the Board to depart from that Decision. However, it was acknowledged that the Board looked at factors other than the comfort of CAPP, the potential shippers and IPL with the tolling methodology in reaching its Decision in RH-2-91.

The Other Producers expressed concern that approving the Line 9 Reversal Project would be inconsistent with the Board's ruling that Line 9 should be tolled on a stand-alone basis, as set out in RH-2-91. However, they did not argue that the RH-2-91 Decision should not be reviewed, nor whether the burden as to whether the Decision should be reviewed has been met.

Views of the Board

The Board agrees with the law as set out in *Macaulay* and discussed by Ontario. It is not bound by a previous decision. However, the RH-2-91 Decision was taken specifically to apply to future events, that is, *inter alia*, the reversal of Line 9. The Board also strives for consistency in its decisions. Therefore, it is of the view that there should be significant reasons to consider varying that Decision.

Section 44 of the *National Energy Board Rules of Practice and Procedure, 1995*[50] requires that an application for review set out the grounds sufficient to raise a doubt as to the correctness of the decision, including changed circumstances or new facts that have arisen since the close of the original proceeding.

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[48] These include Imperial, Petro-Canada, Shell, NOVA and CAPP. CAPP is the successor organization to the Canadian Petroleum Association and the Independent Petroleum Association of Canada, both parties to RH-2-91.

[49] R.W. Macaulay & J.L.H. Sprague, *Practice and Procedure Before Administrative Tribunals*, Vol. 1 (Toronto, Ont.: Carswell) at pp. 6-6 - 6-8. ("*Macaulay*")

[50] S.O.R./95-208.

> The CRA and the subsequent agreements put before the Board involve the pipeline company, the parties who would be potential shippers on the line and a major industry association representing the shippers on the Older System. The Board is of the view that the involvement of all of those parties is significant and warrants an examination of those negotiated agreements.

8.3 Stand-Alone versus Integrated Toll Methodology

In the RH-2-91 Decision, the Board stated its belief that

> in order to set just and reasonable tolls for IPL, the principles of cost-based/user-pay tolls and no unjust discrimination should be respected. If possible, the objectives of simplicity, stability and predictability should be met, but not at the expense of the principles. Further, tolls should ideally be set in order to promote economic efficiency. However, when there is a conflict between adherence to the principles of cost-based/user-pay tolls and setting tolls to promote economic efficiency, there would need to be strong reasons before the Board would depart from adherence to cost-based/user-pay tolls. Finally, consideration should be given to fairness for all of the parties affected by the decision.[51]

In the RH-2-91 proceeding, in order to determine the appropriate toll design for the reversed Line 9, the Board considered whether the toll design should be stand-alone, integrated, or a combination of the two methodologies.[52] The Board found that stand-alone tolls would be more appropriate in order to respect the principle of cost-based, user-pay tolls.[53] The Board also found that stand-alone tolls would be the fairest solution for affected parties. With respect to economic efficiency, the Board found that stand-alone tolls would send the appropriate price signals to potential users of a reversed Line 9 and would therefore promote appropriate decision making by shippers.[54]

In its current application, IPL proposed that Line 9 tolls in the post-purge, pre-reversal period be charged on an integrated basis with the Older System in accordance with the CRA. During the Primary Term, tolls would be charged on a partially integrated basis with excess revenues flowing to the Older System and revenue shortfalls being recovered from the Older System. In the Extended Term, tolls would be charged on a stand-alone basis. IPL requested variance of that portion of the RH-2-91 Decision that relates to tolling on Line 9 to allow for partially integrated tolling in the five-year transition period post-reversal.

Under the applied-for toll methodology, the interim toll from Montreal to Sarnia for the Primary Term would be $\$3.195/m^3$ ($0.508/bbl). This compares to stand-alone tolls on Line 9 of about $3.65/m3 ($0.58/bbl) for a throughput of 22 220 m3/d (140,000 b/d) or about $2.26/m3 ($0.36/bbl) for a throughput of 38 160 m3/d (240,000 b/d) using IPL's stand-alone calculations.

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[51] *Supra*, footnote 2, at p. 68.

[52] *Ibid.*

[53] *Ibid.*, at p. 80.

[54] *Ibid.*, at p. 81.

With respect to the Primary Term, IPL argued that the tolls paid by toll payers would not equal the revenue received by IPL. It receives revenue based on its calculation of stand-alone costs. The actual tolls will vary with the volumes shipped as detailed in the CRA. It would be inappropriate to characterize the CRA as a "cross-subsidy". Rather, it should be viewed as a mechanism to share the impact of the phase-in of a competitive transportation alternative. Under the throughput forecasts, cancelling the CRA would result in Older System shippers missing out on substantial payments that they would receive under the applied-for methodology. IPL submitted that the proposed toll methodology is just and reasonable in the way that it allows for transition from fully integrated to fully stand-alone tolls.

The Refiners did not dispute the proposition that stand-alone tolls are appropriate for a reversed Line 9. In addition, the proper market signals would be sent by tolls which would make it economic to use an idle asset and not by tolls which would ensure that such assets remain idle. If faced with stand-alone tolls on a reversed Line 9, the Refiners indicated that they would proceed with the project. They noted that it was not the Refiners who were insistent on departing from a stand-alone methodology. Rather, while attempting to balance the needs and interests of all parties, negotiations diverted from a stand-alone toll design to provide a bridging mechanism. The CRA would result in a significantly increased cost for the Refiners over the transition period when compared to stand-alone tolls by raising the toll from $2.26/m3 ($0.36/bbl) on a stand-alone basis to $3.195/m3 ($0.508/bbl) under the CRA. As well, western Canadian producers would benefit from the revenue sharing mechanism in that it would allow western Canadian crude oil to compete in the Ontario market by reducing the take-or-pay effect of stand-alone tolls.

CAPP indicated that a stand-alone toll design is appropriate. Its position is that if markets undergo significant changes and uncertainty exists in relation to those changes, it would be desirable to implement measures that facilitate an orderly transition and thereby minimize disruption. For this reason, the applied-for toll methodology with its five-year transition period was supported. The reversal of Line 9 would represent a significant change in the market in that it would introduce a new competitive supply source and, therefore, warrants a transition period. CAPP suggested that western Canadian producers have already benefited from the CRA in that the reversal was postponed to 1998, the reversal will take place in stages with volumes restricted to less than 25 440 m3/d (160,000 b/d) prior to 1999 and the timing of the reversal would be driven by market economics through the Trigger Mechanism.

The ADOE and Producers as well as the Other Producers argued that IPL's proposed integrated and partially integrated tolling cross-subsidizes the purchase of crude oil from a competing supply basin. A stand-alone toll calculated using a revenue requirement that includes all costs associated with reversing Line 9 would be appropriate.

The ADOE and Producers submitted that the stand-alone revenue requirement is 45 percent higher than IPL's ($38.8 million compare to $26.7 million in year one) and that this would result in higher stand-alone tolls than IPL calculated.

Suncor supported the applied-for toll methodology arguing that it would provide an opportunity for western Canadian volumes to compete for the Ontario market on a level playing field during the five-year phase-in period by removing the incentive for the Refiners to take the maximum volumes from Line 9. If Line 9 is tolled on a stand-alone basis, western Canadian crude oil would have to be

discounted by at least the Line 9 toll in order to compete in the Ontario market. This could have a domino effect on other crude oil sales and prices.

The ADOE and Producers opposed the applied-for toll methodology for two main reasons. First, the Refiners would not be paying stand-alone tolls. Second, the proposed revenue requirement does not include all costs associated with reversing Line 9. They would not oppose Line 9 reversal provided tolling occurs on an all-in, stand-alone basis.

The lack of stand-alone tolls including all associated costs, in the ADOE and Producers' view, has the effect of lowering the economic hurdle for the Refiners. Line 9 deliveries could commence earlier than would otherwise be economically justified under all-in, stand-alone tolls. The applied-for toll methodology and the proposed revenue requirement create cross-subsidies which skew the economics of reversal. This would facilitate the premature reversal of Line 9 which would cause price discounting of western Canadian crude oil.

The ADOE and Producers submitted that the applied-for toll methodology would be inconsistent with cost-based, user-pay principles. A number of items should be included in the Line 9 cost of service including among other things: post-purge, pre-reversal costs; the difference between the book and market values of the Clarkson Lateral; an alternate depreciation rate; and a capital structure that represents the stand-alone nature of Line 9.[55] The inclusion of these costs would ensure that the full costs of providing Line 9 service would be borne by Line 9 shippers and would be consistent with cost-based, user-pay principles.

Ontario noted that many parties, including IPL, the Refiners and CAPP, are comfortable with the applied-for toll methodology. This clearly demonstrates different circumstances than those which existed in RH-2-91 and constitutes a departure from the stand-alone toll decision.

Quebec stated that it is not opposed to the partially integrated toll methodology and recognized that it was the result of negotiations and commercial agreements among the various stakeholders.

Views of the Board

In the RH-2-91 Decision, the Board stated its belief that stand-alone tolls would be the most appropriate methodology for a reversed Line 9. The Board notes that, in the current proceeding, no party opposed the principle of stand-alone tolls. It is recognized, however, that the applied-for methodology, which is the result of negotiations between CAPP, the Refiners and Sunoco, is a compromise which would allow for a transition from fully integrated to fully stand-alone tolls. The Board is of the view that it is reasonable, in this case, to have such a transition period in order that participants have adequate time to adjust to changes in oil markets which may result from the reversal. The Board therefore approves the applied-for toll methodology which allows for a transition from a fully integrated to a fully stand-alone toll methodology.

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[55] See sections 8.6-8.8 for a full discussion of these items.

8.4 Valuation of Line 9

In the RH-2-91 Decision, the Board found that

> if IPL maintains ownership of the Montreal Extension, any form of revaluation of the rate base would result in tolls which are not consistent with the traditional concept of cost-based tolls. The historical costs associated with the Montreal Extension, including the current level of accumulated depreciation, have been recovered partly through tolls on IPL's systems, and partly through the Federal Governments's deficiency payments to IPL. In other words, although the historical costs of the Montreal Extension have not been recovered entirely through tolls, IPL has in fact recovered the costs. Given that these costs have been paid, the Board does not believe that it would be consistent with the principle of cost-based/user-pay tolls to add a portion of these costs back into the rate base.[56]

In 1996, the Government of Canada sought unconditional offers to purchase Line 9. Included in the offer document was a reservation price of $20 million and a requirement that the purchaser take the pipeline on an "as is, where is" basis. IPL purchased the Government of Canada's option to acquire Line 9 for $10.3 million and thereby retained ownership. No other party submitted a bid.

IPL argued that Line 9 should neither be revalued nor should a recapitalized rate base be used in determining the reversal timing. Line 9 has been fully depreciated over 20 years, the Federal Government paid a portion of that depreciation and the Board accepted these payments as appropriate. In the RH-2-91 Decision, the Board found that if IPL maintains ownership of Line 9, any form of revaluation would not be consistent with cost-based tolls. IPL argued that its transaction with the Government of Canada was at arm's length and should be viewed as market based.

The Refiners argued that the price for Line 9 was set through an open market transaction and therefore represents a fair market value. As well, the issue of revaluation was addressed by the Board in the RH-2-91 Decision and need not be revisited.

Although the ADOE and Producers did not seek to have Line 9 revalued they argued that the $10.3 million purchase price does not represent the fair market value. They asked the Board to be cognizant of the "fortuitous circumstances" under which the Refiners found themselves. One of these circumstances was that the Refiners would be gaining the benefit of a fully depreciated Line 9 which would cause a distortion of pricing signals. As well, the cross-subsidization between the Older System and Line 9 does not constitute a level playing field. Given that the Refiners would be the beneficiaries of the fully depreciated Line 9 rate base, it is important that all costs associated with providing Line 9 service be included in the revenue requirement.

Ontario argued that the rate base of Line 9 should not be adjusted to reflect payments made under the Deficiency Agreement. It argued that the settlement between IPL and Canada reflects the current fair market value of Line 9.

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[56] *Supra*, footnote 2, at p. 84.

Views of the Board

In the RH-2-91 Decision, the Board stated that if IPL maintained ownership of Line 9, it would be a departure from cost-based tolls to revalue the rate base.[57] The Board notes that no party in the OH-2-97 proceedings advocated revaluing Line 9 with respect to the determination of tolls. The Board therefore accepts the applied-for valuation of Line 9 as being reasonable in these circumstances.

8.5 Negotiated Agreements

Two negotiated agreements, the CRA and the FSA, form the cornerstone of IPL's application for Line 9 reversal. The CRA includes the Trigger Mechanism, the revenue sharing mechanism and the inclusion of interim costs in the Older System. The FSA is an agreement between IPL and the Refiners which incorporates the principles of the CRA. The FSA, among other things, includes financial commitments by the Refiners to cover the project, development and operating costs and the revenue requirement of Line 9 for the Primary Term. The FSA also establishes that the Refiners would have unapportioned access to their respective contracted volumes.[58]

During the proceeding, certain parties questioned whether or not they should be bound by the terms and conditions of agreements they did not sign. Those in support of the agreements submitted that even though not all parties signed them, their interests were represented by CAPP. They also submitted that benefits of the agreements have already been bestowed.

8.5.1 CAPP/Refiner Agreement

IPL testified that the benefits of the CRA include sharing the risks and benefits of Line 9 reversal between the Refiners and Older System shippers. In the case where the Refiners fully utilize Line 9, revenues would flow from Line 9 to the Older System, reducing Older System tolls which makes them incrementally more competitive in the Ontario market. In the event that volumes are low on Line 9, revenue would flow from the Older System to Line 9. This sharing mechanism, combined with the fixed tolls, would have the effect of reducing the incentive for the Refiners to ramp up volumes in order to lower the per unit toll. Western Canadian producers would, therefore, have the opportunity to sell crude oil into the Ontario market. Integrated tolling in the post-purge, pre-reversal period would reduce the incentive for the Refiners to direct IPL to commence construction any earlier than necessary because they would not be responsible for the costs of Line 9B until this direction is given. This, IPL suggested, could allow the reversal to be delayed in some cases.

IPL argued that the CRA was a contract entered into by parties dealing at arm's length and from equality of bargaining power. It was an agreement with give and take on both sides and would share the risks and benefits of the transition to Line 9 reversal. IPL accepted the CRA, relied on it and presented it to the Board because it was entered into by the affected parties including CAPP, which IPL believes represents producer interests.

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[57] *Ibid.*, at p. 85.

[58] For a description of these agreements, see Chapter 2.

The Refiners argued that western Canadian producers have already and will continue to benefit from the CRA. The tolls to Sarnia under the CRA would be $3.195/m3 ($0.508/bbl) compared to $2.26/$m^3$ ($0.36/bbl) under a stand-alone methodology, assuming 38 160 m^3/d (240,000 b/d) of throughput. As well, the revenue sharing mechanism would allow western Canadian crude oil to compete against offshore crude oil in Ontario during the transition period because it would blunt the take-or-pay effect of stand-alone tolls. Their motivation for signing the CRA was not the possibility of offsetting revenue from the Older System, rather, the primary motivation for negotiating the CRA was their desire to obtain CAPP's acceptance of Line 9 reversal.

CAPP also submitted that western Canadian producers have already received benefits from the CRA. The benefits they suggested include: avoidance of a premature reversal; adoption of a market-based trigger for reversal; agreement on an acceptable level of tolls; establishing partially integrated tolls with a five-year transition period allowing western Canadian producers access to the Ontario market; and a sharing of risks and benefits along with a more orderly transition to increased competition.

The ADOE and Producers argued that it is clear, on the matter of the Line 9 reversal, that they are not represented by CAPP. However, the ADOE and Producers would be bound by the CRA without having been given the opportunity to participate in negotiations. If a transaction is truly market-based, it should occur between willing parties.

The ADOE and Producers noted that one of the benefits purported by CAPP was to delay the reversal of Line 9. The dates were negotiated to reflect the availability of alternative pipeline capacity from the construction of the Express Pipeline and IPL expansion. The CRA failed to prevent a premature reversal of Line 9 because IPL's incremental export capacity is not in place. As well, phased-in volumes for Line 9 reversal occur not because of the CRA, but only because of capacity restrictions on the Portland-Montreal system.

Another purported benefit of the CRA noted by the ADOE and Producers was the five-year transition period that would allow western Canadian crude oil to compete in the Ontario market. Despite expected seasonal variation in pricing, the Refiners indicated they do not expect seasonal variations in throughput. In addition, the price of MSW would have to be at least $3.195/$m^3$ ($0.508/bbl) lower than the landed price of Brent crude oil in order displace it at Sarnia. To the extent that western Canadian producers choose to absorb a discount to serve the Ontario market, the impact would be felt by all western Canadian light sweet crude oil.

8.5.2 Facilities Support Agreement

IPL submitted that while supply for the Line 9 reversal is available worldwide, the draw for supply would very much depend on a small number of shippers of which only four chose to sign the FSA. The U.S. Gulf Coast and western Canada are alternative sources of supply that would compete with Line 9. IPL indicated that while the long-term trend may be towards decreasing inland light crude oil availability, the situation today is one of uncertainty which causes IPL concern and led it to require the FSA. Therefore, the Company would not be prepared to proceed with Line 9 reversal without the support of the FSA.

IPL argued that the FSA was borne of lengthy, complex and difficult negotiations. The Board was requested to recognize this as well as consider the give and take of the FSA. Because it was the result of negotiations, the Board should consider the delicate balance which the FSA incorporates.

The Refiners acknowledged that the FSA was not a negotiated toll settlement that meets the requirements of the Board's 1994 *Guidelines for Negotiated Settlements of Traffic, Tolls and Tariffs*. However, they argued that the revenue requirement components were still the subject of negotiations on both sides. If a pipeline company and its shippers can agree on revenue requirement, that should provide comfort to the Board that the costs are appropriate.

Suncor noted that the Refiners expected high load factors on a reversed Line 9, that they would have saved US$17-20 million if the line had been reversed in April 1996 and that the Refiners themselves stated that the project is a defensive measure to keep their costs down. Therefore, Suncor argued that these circumstances strengthened the bargaining position of IPL and allowed it to demand an FSA in order to reduce its exposure.

8.6 Rate Base

8.6.1 Transfer of Assets from Older System to Line 9

IPL proposed to transfer certain existing Older System assets to Line 9. These assets consist primarily of the Clarkson Lateral, the Clarkson Pumping Station and Terminal, Line 7 from Bronte Junction to Clarkson Terminal and the pipeline between North Westover and Westover. It was further proposed that these assets be transferred at their net book value ("NBV") of $8.7 million, together with an undepreciated capital cost ("UCC") equal to their NBV.

In justifying the transfer of UCC equal to NBV, IPL submitted that when an arm's length tax entity acquires an asset, it normally also is granted UCC equal to the value of the asset acquired. By according the transferred assets a UCC equal to the NBV, the transfer of the assets is being treated in both systems as an arm's length transaction.

It was submitted by the ADOE and Producers that for all-in, stand-alone tolls, the fair market value ("FMV") of the transferred assets should be determined and those assets should be included in the rate base at that value. Under those circumstances it would be appropriate to have a UCC equal to the proceeds paid, with the exception of land rights which may have a different treatment for tax purposes. If the FMV could not be determined, then the UCC transferred should be reduced by $3.7 million to $5.2 million. The $5.2 million represents the UCC for the Older System assets transferred to the Line 9 Reversal Project, calculated as an amount that is proportionally equal to the ratio the NBV of the transferred assets bears to the NBV of the total Older System assets at 31 December 1997.

The ADOE and Producers provided schedules assuming that the assets had a FMV of $11.952 million, and increased the UCC to reflect this amount. To IPL's suggestion of $8.952 million for the NBV of the assets, the ADOE and Producers added $3.0 million to reflect the difference between the NBV of the Older System assets transferred and their FMV. In addition, a charge for the original Line 9 land rights of $0.333 million was included for a total FMV of $11.982 million which, it was suggested, is a reasonable approximation of FMV for illustrative purposes. The ADOE and Producers argued that this amount is likely less than the cost of replacing Line 9 and is still a benefit to the Line 9 shippers.

In related evidence IPL submitted that FMV is normally determined as the transaction price between parties acting at arm's length, but in this situation there was no transaction to determine the fair market value of the assets. IPL noted that if the Line 9 Reversal Project were to proceed in a manner that did not utilize the transferred assets, these assets would be idled. In IPL's view, NBV is a

reasonable transfer value that is fair to both the reversed Line 9 shippers and the Older System shippers and is consistent with the treatment of Older System assets transferred to Line 8. The transfer of the assets at NBV relieves the Older System of the burden these assets would present if idled and, at the same time, provides useful assets to the Reversed Line 9 shippers at a price likely below replacement cost.

8.6.2 Deferred Tax Debit

In the RH-2-91 Decision, the Board concluded that the allowance for income taxes to be included in IPL's tolls should be calculated on a flow-through basis. The Board further directed, with respect to the accumulated deferred tax balance on IPL books, that no adjustment was required at that time. Since 1 January 1992, the Montreal Extension capital structure has included a debit balance of $9.852 million related to deferred taxes.

In the present application, IPL proposed a special Non-Routine Adjustment to the Older System Starting Point pursuant to the ITS to allow for deduction of this debit balance from the deferred tax credit balance currently outstanding in respect to the Older System.

IPL explained that the transfer of the deferred tax debit to the Older System will, in effect, reduce the existing Older System deferred tax credit. This deferred tax credit reduced the Older System rate base from 1992 on. Thus, if transferred, the debit balance would act as an increase in investment by IPL in the Older System.

The deferred tax debit represents an amount of taxes paid by IPL in excess of tax expense recovered in tolls during the period when IPL tax expense was calculated under the deferral method. This excess accrued during the period leading up to 1992, following which IPL tax expense for toll setting purposes was required to be calculated on a flow-through basis. Thus, IPL argued that it has earned a debt return on this deferred tax debit balance, but not a return of the balance.

IPL also argued that during the time in which the deferred tax debit balance accrued, the Montreal Extension was integrated with the Older System and was utilized by Older System shippers with the exception of a short period of time in 1991 and 1992. Had IPL been accounting for taxes on a flow-through basis during this period, Older System shippers would have paid higher taxes in respect of the Montreal Extension. The higher tax expense under the flow-through method of accounting for income taxes would have equalled the deferred tax debit balance. Therefore, that the transfer of the deferred tax debit to the Older System merely places the burden where it rightly belongs and is not a cross-subsidy.

The ADOE and Producers submitted that the deferred tax debit relates to the Line 9 assets and should be included in the Line 9 rate base. Further, they stated that in some of IPL's preliminary projections of tolls, it reflected an amortization of the deferred tax debit over thirty years. However, it might be appropriate to amortize that debit over a shorter period.

According to the ADOE and Producers, recovery of the amortization of the deferred tax debit would increase the tax expense of the stand-alone reversed Line 9, all other things being equal. The offset would be a higher UCC, which would be a proper stand-alone treatment.

8.6.3 Post-Purge, Pre-Reversal Costs

IPL is currently on interim tolls effective 1 January 1997. These tolls include the adjustments proposed in the current application with respect to Line 9B.

IPL applied to charge tolls on its entire system, including the Older System and Line 9, on an integrated basis until reversal. It proposed that in the post-purge, pre-reversal period, the IPL net revenue requirement for Line 9 be recovered in the tolls paid by the shippers on the Older System. To achieve this result for this time period, Line 9A would be considered to be part of the Older System as it will continue to be used for west-to-east service until reversal. IPL requested that Line 9B also be considered to be integrated with the Older System even though it is currently purged with nitrogen.

The ADOE and Producers argued that the post-purge, pre-reversal costs associated with Line 9B should not be borne by the Older System shippers, as these are costs relate to the reversed Line 9 and provide no benefit for Older System shippers. Line 9B would not be available for service unless $20 million worth of line fill is provided. The ADOE and Producers further argued that inclusion of these costs in the Line 9 rate base would be consistent with the RH-2-91 Decision. Inclusion of these costs in the Older System revenue requirement would be contrary to stand-alone tolls and continue the cross-subsidization by Older System shippers of the reversed Line 9 shippers. Instead, it was recommended that the 1997 and 1998 post-purge, pre-reversal costs totalling $11.145 million be amortized over a ten-year period.

IPL stated that there is little evidence to suggest that integrated tolling is not appropriate in the post-purge, pre-reversal time frame. It pointed out that although in RH-2-91, the Board decided that when the Montreal Extension was idle it should be tolled on a stand-alone basis, it also stated that fairness required that the Government of Canada be responsible for all costs of the Montreal Extension while there was no throughput. IPL submitted that various circumstances have changed since the RH-2-91 Decision and those circumstances warrant tolling of Line 9B on an integrated basis post-purge, pre-reversal. The inclusion of such amounts in Line 9 would amount to a retroactive repricing of the rate base.

8.6.4 Line 9 Deficiency Amount

The Government of Canada released its claim on the Line 9 facilities for forgiven deficiency payments and a cash payment for a total of $10.3 million and the assumption by IPL of all potential liabilities, including those for historic crop loss damages. In the CRA, the Refiners agreed to reimburse IPL for the Line 9 Deficiency Amount of $10.0 million.

IPL proposed that the Line 9 Deficiency Amount be amortized over ten years with a carrying cost of three-quarters of the Banker's Acceptance rate. IPL indicated that the Bankers' Acceptance rate is 3.25 percent for purposes of this application.

The ADOE and Producers pointed out that the Line 9 Deficiency Amount would earn IPL a rate some 660 to 680 basis points lower, ignoring tax, than if the amount were included in rate base. They argued that it is unlikely that IPL could borrow at three-quarters of the Bankers' Acceptance rate, let alone finance the Line 9 Deficiency Amount solely with debt. In addition, the Line 9 Deficiency Amount should be increased to reflect the actual amount of $10.3 million. They also proposed that

carrying costs should be computed in accordance with the Board's usual practice of a rate equivalent to the return on rate base.

It was recommended by the ADOE and Producers that the Line 9 Deficiency Amount be included in rate base and that it be amortized over ten years to reduce IPL's risk of capital recovery and to be consistent with an amortization period proposed by IPL and the Refiners in the FSA.

IPL argued that the only differences in the impact on annual Line 9 revenue requirement between the position of the ADOE and Producers and the IPL proposal is the carrying cost rate and the value of the Line 9 Deficiency Amount, both of which were determined through negotiation and therefore reflect market forces. Any difference between those amounts and the actual costs incurred by IPL will be borne by its shareholders. Further, IPL argued that it does not believe it is appropriate to increase the annual revenue requirement in the artificial and arbitrary manner suggested by the ADOE and Producers. IPL would not oppose the inclusion of the unamortized deficiency amount in the reversed Line 9 rate base provided that an equivalent amount is included in the reversed Line 9 capitalization and the unamortized deficiency amount in the capital structure is assigned a cost rate consistent with the negotiated rate set out in the FSA.

According to IPL, the Deficiency Amount has been included in rate base as it is part of the agreed acquisition costs to be included in the revenue requirement.

8.6.5 Pre-Build Carrying Costs

The CRA indicates that 50 percent of the Prebuild Carrying Costs would be recovered through the Older System tolls and the remaining Prebuild Carrying Costs would be the Refiners' costs.

The ADOE and Producers argued that IPL did not adequately explain why the carrying cost rate used was not the usual return on rate base. There have been no adequate explanations given which would allow the Board to determine the justness and reasonableness of the inclusion of this item in the Older System revenue requirement.

It was proposed by the ADOE and Producers that the Line 9 rate base should include carrying costs calculated by applying the Line 9 return on rate base, estimated at 9.2 percent for year one, to $30.0 million of forecast prebuild costs for a full year rather than the cost of debt of 3.75 percent for six months as proposed by IPL. The use of the $30.0 million was assumed to be representative of the approximate average cost of plant under construction for the year prior to the commencement of operations of the reversed Line 9. The ADOE and Producers proposed that the Line 9 rate base be increased by $2.198 million, with the amount being amortized over 10 years.

8.6.6 Tankage Allocation

As discussed in section 3.2.1.1, IPL proposed that three of the existing 17 storage tanks at the Sarnia Terminal be allocated to the Line 9 Reversal Project. The ADOE and Producers questioned IPL on how it determined which tanks would be transferred from the Older System. IPL replied that it considered such factors as tank capacity, existing tank bottoms and piping arrangements.

With respect to tank capacity, IPL stated that it had determined the working volumes required for the three types of offshore crude oil arriving in Sarnia. Subsequently, IPL proposed that three tanks with

specific nominal capacities, two 31 800 m^3 (200,000 bbl) tanks and one 62 000 m^3 (390,000 bbl) tank, be allocated to Line 9 service. Irrespective of this allocation, IPL noted that there are several tanks at Sarnia with similar capacity and, depending on which tanks are in service at the time, it may be more appropriate to choose one tank over another.

When questioned whether it had taken into consideration the level of depreciation of the tanks IPL replied that its decision was based on what made the most sense operationally and that financial factors were not taken into account.

IPL identified tankage allocation at the Sarnia Terminal pre- and post-reversal and the depreciated book value for each tank. The three tanks identified for Line 9 service (now identified as three 31 800 m^3 (200,000 bbl) tanks) are the only tanks at the Sarnia Terminal that are fully depreciated. The ADOE and Producers expressed concern that, although IPL will utilize all tanks at Sarnia as necessary to achieve operational efficiency, only the three fully depreciated tanks have been included in the Line 9 rate base.

8.7 Cost of Capital

8.7.1 Capital Structure

IPL applied for a capital structure for reversed Line 9 to be:

- Year 1 - 40.00 percent equity / 60.00 percent debt;
- Year 2 - 41.25 percent equity / 58.75 percent debt;
- Year 3 - 42.50 percent equity / 57.50 percent debt;
- Year 4 - 43.75 percent equity / 56.25 percent debt;
- Year 5 - 45.00 percent equity / 55.00 percent debt; and
- thereafter in accordance with the latest determination thereof by the Board.

IPL submitted that an equity component of 40.0 - 45.0 percent is not large, in relation to crude oil and products pipeline ratios, debt rating benchmarks, risks, unique aspects of the pipeline and the various agreements among IPL, the Refiners, Sunoco and CAPP. IPL noted that in the Multi-Pipeline Decision[59] the Board found that a 45 percent common equity ratio was appropriate for Trans Mountain. Further, Trans-Northern Pipeline Inc.'s recently approved incentive toll settlement specified the use of its actual capital structure within a 50 to 55 percent range. Further, the benchmark debt ratio for an A-rated oil pipeline is 50 to 60 percent and the complementary equity ratio is 40 to 50 percent. IPL concluded that based on an analysis of fundamental business risks, a reversed Line 9 merits a common equity ratio between 45 and 50 percent.

Rather than the sliding scale proposed by IPL, the ADOE and Producers proposed that the rate base be financed by a fixed 55 percent debt and 45 percent equity ratio. The ADOE and Producers stated that the rate of 45 percent equity was proposed in order to be conservative. To the extent that the equity component of Line 9 is too low, then the equity of the Older System is too high. Further, an equity ratio which is too low relative to the business and financial risks of Line 9 on a stand-alone basis results in cross-subsidization. It is unclear whether the subsidy is from the Older System. However,

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[59] Multi-pipeline hearing in respect of cost of capital, RH-2-94, Reasons for Decision dated March 1995 ("Multi-Pipeline Decision").

due to the nature of the ITS, while the Older System shippers may not be paying the amount directly, their share of the cost savings may be affected.

8.7.2 Cost of Debt

IPL applied for the cost of debt to be a per annum rate of interest equal to the sum of:

- the Benchmark Canada Bond yield as defined in the FSA;
- the Generic Utility Spread as defined in the FSA; and
- 0.65 percent per annum.

IPL stated that the 0.65 percent per annum includes the differential between the stand-alone risk of Line 9 and IPL's overall corporate risk, an allowance for a liquidity premium that a small issuer would face, as well as an allowance for issue costs.

8.7.3 Return on Equity

IPL proposed that the Line 9 return on common equity be the generic rate of return for a benchmark pipeline approved by the Board for all crude oil pipelines, adjusted year to year in accordance with the formula approved by the Board in the Multi-Pipeline Decision. In that Decision, the Board determined that any differentials between pipelines can best be accounted for through adjustments to the common equity ratios rather than by making company-specific adjustments to the benchmark pipeline's rate of return on common equity.

IPL argued that it had demonstated the reasonableness of the applied-for range of common equity ratios in light of the risks to which a reversed Line 9 would be exposed, the unique features of the FSA and the exclusion of the Deficiency Amount from rate base. Therefore, IPL concluded that the benchmark pipeline rate of return from the Multi-Pipeline Decision was conceptually applicable to the common equity component of the reversed Line 9 capitalization.

8.8 Depreciation

IPL proposed that depreciation and amortization expense be calculated annually using the Older System method and rates. IPL cited the extensive maintenance work it does on its system, including Line 9, the leak history of Line 9 and the results of its recent hydrostatic tests in which no leaks were encountered in support of a long physical life for Line 9. IPL pointed out that the IPL depreciation rates which form the basis of the Line 9 depreciation rates were determined in a depreciation study where the physical lives of assets which extended past 2017 were truncated based on economic life. Therefore, the 35-year life of the pipeline was based upon economic life and not the physical life.

The average depreciation rate of 2.86 percent, used for toll purposes implies an average life of 35 years in the ADOE and the Producers' submissions. In their view of the new assets of Line 9 are unlikely to be used and useful in the provision of service on Line 9 after the useful life of the majority of the original Line 9 assets has expired, unless a new pipeline is built. Given that Line 9 is approximately 20 years old, the Line 9 depreciation should be adjusted to reflect a total life of 35 years of which 20 years have already elapsed. Therefore, depreciation should be based on an average remaining life of the Line 9 assets of approximately 15 years.

The ADOE and Producers noted that if the useful life of Line 9 is greater than 35 years, then the depreciation expense, a portion of which has been covered by existing customers on the Older System, was overstated. The ADOE and Producers further pointed out that if this were the case then the cross-subsidy resulting from integration of tolls would have been reduced somewhat from $131.8 million. However, deficiency payments would have been higher. In comparison, the less risky Older System is being depreciated over 17 to 32 years. The ADOE and Producers argued that one of these rates would seem to be incorrect.

8.9 Tolls

8.9.1 Post-Purge, Pre-Reversal

With the exception of Line 8, IPL applied to continue to charge tolls on its entire system, including the Older System, and Line 9, on an integrated basis until reversal.

8.9.2 Primary Term

IPL applied for Line 9 tolls to be calculated on a stand-alone basis with some aspects of integration with the Older System during the Primary Term. During this period the benefits and risks of reversal would be shared between Older System shippers and shippers that have committed to the utilization of Line 9, while IPL is kept whole in respect to its Line 9 costs.

IPL proposed that in each of the first five years following reversal it would charge provisional, interim tolls on Line 9 as indicated in Table 8.1.

Table 8.1
Provisional Interim Tolls

	Line 9 Proposed Interim Toll[60]		Older System Integrated Toll[61]		Total Interim Toll[62]	
Destination	per m^3 ($)	per bbl (¢)	per m^3 ($)	per bbl (¢)	per m^3 ($)	per bbl (¢)
Sarnia	2.855	45.4	0.340	5.4	3.195	50.8
Nanticoke	2.195	34.9	0.572	9.1	2.767	44.0
Oakville	2.183	34.7	0.352	5.6	2.535	40.3

[60] Tolls determined for transportation and terminalling of Line 9 reversal volumes using Line 9 assets.

[61] Tolls determined for transportation and terminalling of Line 9 reversal volumes using Older System assets.

[62] The sum of the Older System integrated toll and the Line 9 provisional interim toll.

At the end of each of the first five years following reversal, adjustments would be made to effect the risk-sharing arrangement and arrive at final tolls.[63]

Under IPL's proposal, adjustments to Older System tolls would be applied to the IPL revenue requirement in the following year through the Non-Routine Adjustment mechanism of the ITS.

Under the proposal, the interim toll would be the final toll for interruptible shippers.

IPL stated that the interim toll was the product of arm's length negotiations between commercially sophisticated parties, who represent virtually all of the shippers on the Older System and Line 9. It noted that the interim toll of $\$3.195/m^3$ ($0.508/bbl) is very close to the integrated toll from Montreal to Sarnia which is $\$3.233/m^3$ ($0.514/bbl). Because the interim toll is fixed for the Primary Term the interruptible shipper is protected from toll increases arising from volume shortfalls and cost increases. Balancing these advantages for interruptible shippers is the fact that they will not participate in the year end true-ups which could result in final tolls for contract shippers being lower than interim tolls.

The ADOE and Producers submitted that the proposed tolls are inconsistent with cost-based, stand-alone tolls and result in cross-subsidization between Older System shippers and reversed Line 9 shippers. It was submitted that in the period from 1988 to 1996 the Montreal Extension has been subsidized by the Older System to the extent of 69.6 percent of the total revenue requirement.

The ADOE and Producers view the failure to include certain items in the rate base of the Reversed Line 9 and requiring Older System shippers to provide financial support to the Reversed Line 9 as a continuation of the subsidy. The NPV of the subsidy at 10 percent is $33.2 million for the first five years, based on the difference between the revenue requirement presented by Purvin & Gertz and the revenue requirement presented by IPL. The ADOE and Producers pointed out that in the first year, tolls do not provide a full recovery of the revenue requirement, since there is an impact on the Older System toll. In subsequent years, the impact, if any, based on the interim tolls depends on the volumes shipped on the reversed Line 9.

Under the FSA and the CRA, the Older System shippers would bear the costs that the ADOE and Producers contend should have been included in the Line 9 revenue requirement. There may have been reasons, political and economic, for western Canadian producers (many of which are the Older System Shippers) to subsidize Line 9 in the past to obtain access to the Montreal and export markets. However, with the reversal of Line 9 and a different supply basin using the line, there is no reason why the western Canadian producers should continue paying a subsidy for the operation of the reversed Line 9. A competitor should not be required to subsidize its competition. While the NPV of the subsidy of approximately $33.2 million dollars may be small compared to the subsidies in the past, it is indicative that this application results in tolls which are neither stand-alone nor cost-based. In addition, the risks of the Line 9 shippers are reduced at the expense of Older System shippers.

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[63] See section 2.5 of these Reasons for Decision and Schedule F to the FSA.

8.9.3 Extended Term

IPL proposed that during the Extended Term Line 9 tolls be charged on a stand-alone basis.

8.10 Older System Non-Routine Adjustments

8.10.1 Post-Purge, Pre-Reversal

Adjustments if the Montreal Extension is not tolled on an integrated basis

The ITS presently requires a reduction of $10.099 million to the Older System net revenue requirement in the event that all or any portion of the Montreal Extension ceases to be tolled on an integrated basis, in which event costs are to be recovered by IPL on a stand-alone basis. As part of the Line 9 Reversal Project, IPL, CAPP and the Refiners agreed that the net revenue requirement would be calculated to implement the ITS reduction and replace it with the actual costs incurred by IPL in respect of Line 9B. Those costs are presently estimated to be $7.43 million for 1997. The effect is that, post-purge, pre-reversal, the actual costs of Line 9B will be paid by Older System shippers through integrated tolls.

The ADOE and Producers opposed this treatment of the Line 9B costs for the reasons set out in section 8.6.3.

Effect of the transfer of the Montreal Extension deferred tax debit to the Older System

As stated in section 8.6.2, IPL proposed a special Non-Routine Adjustment (an increase of $0.918 million) to the Older System Starting Point to allow for deduction of this debit balance from the deferred tax credit balance currently outstanding in respect to the Older System.

The ADOE and Producers disagreed with this treatment and proposed that the amount be included in the Line 9 rate base and amortized to cost of service over 15 years.

8.10.2 Primary Term

Change in service

Upon reversal, Line 9A would be removed from west-to-east service and placed in east-to-west service. This change in service would precipitate a reduction of $3.772 million to the Older System revenue requirement if reversal occurs in 1998. IPL proposed that the actual costs incurred by IPL in respect to Line 9A would thereafter be included in the stand-alone, reversed Line 9 revenue requirement.

The sharing of risks and rewards on Line 9

During the Primary Term, IPL proposed that Line 9 tolls be calculated on a stand-alone basis with some aspects of integration with the Older System in accordance with the FSA. Adjustments to the Older System tolls would be applied to the IPL revenue requirement in the following year through the Non-routine adjustment mechanism of the ITS. The FSA could result in either an increase or decrease in the Older System revenue requirement depending on volume, but IPL stated that at an annual

volume of 38 160 m^3/d (240,000 b/d), it estimates there would be a reduction in the Older System revenue requirement of $7.5 million.

The ADOE and Producers were opposed to this proposal by IPL for the reasons summarized in section 8.9.

Pre-build carrying costs

IPL applied for a one time non-routine adjustment in the primary term to reflect the provision of the CRA concerning pre-build carrying costs. IPL has not estimated the amount.

The ADOE and Producers opposed this, as they propose that these costs be included in the Line 9 rate base as stated in section 8.6.5.

Transfer of Line 9B to reversal service

As explained in section 8.6.3, post-purge, pre-reversal, the actual costs of Line 9B would be paid by Older System shippers through integrated tolls.

Once Line 9 is reversed, the $7.4 million actual cost of operating Line 9B would no longer be included in the Older System revenue requirement, but would be included in the Line 9 revenue requirement. Therefore, a non-routine adjustment would be required in order to reduce the Older System revenue requirement.

Views of the Board

The Board's *Guidelines for Negotiated Settlements of Traffic, Tolls and Tariffs,* dated 23 August 1994, require that all parties having an interest in a pipeline's traffic, tolls and tariffs should have a fair opportunity to participate and have their interests recognized and appropriately weighed. In the current case, not all persons with an interest in these matters were included in the negotiations leading to the agreements. Some of the parties, who would be directly affected by implementation of the CRA and FSA, expressed considerable opposition to the negotiated agreements. Therefore, the agreements before the Board in this proceeding cannot be considered negotiated settlements within the meaning of the Board's Guidelines.

In reaching this decision, it would therefore be inappropriate to accept or reject the CRA or FSA solely on the basis that these agreements resulted from negotiations. The Board is of the view that in order to ensure the proper exercise of its jurisdiction under Part IV of the Act, it has a responsibility to review the particular components of the agreements to determine whether each is acceptable and appropriate.

The Board has reviewed individually all of the components discussed in this chapter and is satisfied that, taken as a whole, IPL's proposals are reasonable.

While it examined each component of the agreements, the Board also took into consideration the fact that the elements of the agreements were negotiated as a package and thus represent a compromise among conflicting goals between important

representative interests. The Board is reluctant to disturb individual components absent cogent evidence that the agreement, taken as a whole, would lead to results which are inconsistent with the Act. Further, the Board recognizes that there were benefits to all parties to these agreements: IPL received the financial security of the backstopping; the Refiners, the risk-sharing with the Older System; and the western Canadian producers, the delay in the reversal of Line 9 and, under certain conditions, a reduction in Older System tolls.

It is the responsibility of IPL and the Refiners to determine whether the Board's decision on priority access affects other terms of the CRA and FSA.

Chapter 9

Re-reversal

9.1 Facilities

As discussed in Chapter 3, IPL proposed installing approximately $500,000 in facilities to ensure the re-reversal of Line 9. A re-reversed Line 9 would have an annual capacity of 35 700 m^3/d (224,600 b/d).

IPL submitted that re-reversal capability would permit a timely response to supplying Montreal refineries in the event of a supply disruption on the Portland-Montreal system. However, IPL could not foresee all potential circumstances or events that would necessitate Line 9 re-reversal. As an example, re-reversal may be appropriate if the volumes of offshore crude oil on the reversed Line 9 were to fall below 8 750 m^3/d (55,000 b/d). This volume represents the shortfall in capacity compared to the total expected demand for crude oil in mid-Ontario and Warren in the absence of any volumes from Line 9.

In Ontario's view, Line 9 could be re-reversed if the price of offshore crude oil rises above that of western Canadian crude oil for a sustained period or if there is a physical disruption of supplies to Montreal. Ontario noted that, in a real emergency, Montreal refineries could be supplied more quickly if Line 9B is full, rather than in its present condition.

Quebec stated that given that Line 9 was historically designed to serve that province, if market conditions once again make the supply of western Canadian crude oil economically attractive, it would only be fair and equitable to re-reverse Line 9. Quebec recommended that the Board order the Refiners and CAPP to submit, for approval, an agreement containing a re-reversal trigger mechanism similar to that in the CRA. Such an agreement would set the specific market conditions that would lead to re-reversal.

IPL estimated that re-reversal, as a normally planned exercise, could be achieved in six weeks. Quebec expressed concern that, in the event of a disruption on the Portland-Montreal system, the six-week lead time required for re-reversal was too long to guarantee continuity of supply in Montreal. The six weeks required to facilitate re-reversal takes into account the piping changes that would be required at the various stations and the rebuilding of the computerized leak detection system for re-reversed flow. However, this time frame was determined on the assumption that re-reversal would be required in a non-emergency situation. If there was an emergency of the type noted by Quebec, IPL could re-reverse Line 9 within two weeks, given adequate resources and working 24 hours a day. IPL did not anticipate that an application under section 58 of the Act would be required.

In addition to timing, Quebec expressed concern about the administrative mechanisms of re-reversal. With respect to re-reversal, the FSA deals exclusively with compensation mechanisms. Given that, Quebec stated that the regulatory, operational and administrative procedures should be clearly defined ahead of time, so as to be rapidly implementable in the case of a crisis.

Quebec requested that the Board require IPL to install the facilities necessary to ensure a re-reversed Line 9 capacity of at least 40 000 m^3/d (250,000 b/d) in view of the fact that Montreal refiners could need this capacity to meet anticipated growth in demand.

IPL considered Quebec's proposed conditions to be unreasonable and unsupported by the evidence and, therefore, should be rejected.

Views of the Board

The Board considers it unlikely that re-reversal would be required in the normal course of events. However, it is satisfied that, in an emergency, IPL could respond quickly to the needs of Montreal refiners. As well, having Line 9 in operation, as opposed to idle and untested, would save considerable time in effecting deliveries to Montreal refiners, which thereby gain some enhanced measure of security as a result of the reversal.

Given that Quebec presented no evidence to support any of its proposals, the Board is of the view that it is not able to make a determination in these matters.

9.2 Tolls

IPL stated that there is no agreement on what the tolls would be if Line 9 were re-reversed. Board approval would be needed, but not the approval of the Refiners. It was noted that as Line 9 would be in west-to-east service, the expectation would be that integrated tolls would apply.

Quebec recommended that an integrated toll methodology be used in the event of re-reversal.

Views of the Board

IPL did not apply for approval of a toll methodology in the event of re-reversal. If re-reversal occurred, IPL, as a minimum, would have to file a tariff with the Board pursuant to section 60 of the Act. The toll methodology could be considered at that time.

Chapter 10

Priority Destination Designation

10.1 United Refining Company Application

United applied to have Chippawa, Ontario designated as a priority destination while Line 9 is operating in reversed mode, in order to ensure sufficient supply for its refinery at Warren, Pennsylvania. United's refinery currently processes 10 200 m^3/d (64,000 b/d) of crude oil from western Canada and there are plans to expand the refinery by approximately 800 m^3/d (5,000 b/d).

Presently, Lines 7 and 9A operate in a west-to-east direction with a combined capacity of 52 900 m^3/d (330,000 b/d). Post-reversal of Line 9, IPL would increase the west-to-east capacity of Line 7 to 28 600 m^3/d (180,000 b/d) on a temporary basis and reduce it to 24 400 m^3/d (153,500 b/d) once the Keyser Station is taken out of service. The total demand requirement of the three refineries served by Line 7 (Petro-Canada, Imperial and United) is 38 160 m^3/d (240,000 b/d).

IPL operates its system on the basis of monthly tenders. When shippers tender volumes greater than the available capacity on the pipeline system, it is necessary to apportion the volumes tendered in equal proportions among shippers. IPL's current method of apportionment was determined in the MH-3-85[64] proceeding. In that Decision, the Board directed IPL to change from a system of apportionment based on historic volumes to one based on monthly tenders. In doing so, the Board provided that any shipper particularly harmed by this method could apply to have a receipt point designated as a priority destination with volumes exempt from apportionment.

United expressed concern that the redesign of Lines 7 and 9 did not leave sufficient capacity on Line 7 to accommodate the continued sourcing of United's supply from western Canada. United pointed out that, as Brent crude oil was not yet cheaper than western Canadian crude oil on a sustained basis, the source of supply for Ontario refineries would likely shift on a seasonal basis. The proposed margin of spare capacity on Line 7 means that a relatively small shift to western Canadian crude oil could cause apportionment. United's concerns were exacerbated by the fact that those benefiting from a Line 9 reversal, and paying for its costs, would also benefit from any reduced costs of redesigning Line 7.

United chose not to participate in the Line 9 Reversal Project because the project did not suit its operations. United's refinery requires western Canadian heavy and synthetic crude oil to meet the stringent specifications of the specialty products and asphalt it produces. Although some light sour crude oil could be accessed through reversed Line 9, they would not entirely suit United's requirements. Moreover, offshore light sour crude supply is expected to remain more expensive than Canadian supply for some time. United also expressed concern about crude oil mixing, its ability to handle large cargoes at Portland, Maine and the financial requirements of the FSA.

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[64] Interprovincial Pipe Line Limited, MH-3-85, Public Inquiry into matters relating to the apportionment of pipeline space, Reasons for Decision dated July 1985 ("MH-3-85 Decision").

United attempted to determine what possible remedies were available before it applied for priority destination designation. The re-reversal of Line 9 was considered to be an unlikely option. United also investigated changes in the nominations procedure, such that Petro-Canada and Imperial would be restricted to nominating the amount of their forecast. This option was rejected by the Refiners. Another possible remedy was the redesign of Line 7, but United submitted that it is IPL's responsibility to advance the most appropriate design.

United submitted that apportionment on Line 7 would cause it significant harm. While the other two refineries supplied by Line 7 would have access to supply via a reversed Line 9, Line 7 would be United's only source of supply. In its view, this dependence is enough to justify approval of its application for priority destination designation. United was not content with the "wait and see" approach advocated by IPL.

United agreed that priority destination designation should be used sparingly but it believed that applying for such a designation was the only reasonable remedy available.

IPL could not support United's application because it was hypothetical and premature. IPL asserted that it designs its system on the basis of forecasts and that the forecasts for the Line 9 Reversal Project do not envision any need for apportionment on Line 7.

IPL maintained that seasonal variations in price will not necessarily result in seasonal variations in Line 9 usage. In IPL's view, no actual causes for apportionment on Line 7 have been identified. IPL considers Line 7 to be no different from other parts of its system in terms of its susceptibility to apportionment. There could be many causes for apportionment on Line 7 and not all would merit granting priority status to United. IPL suggested, if a problem did occur, the Board has the ability to deal with it swiftly. Meanwhile, capacity on Line 7 could be maintained by operating the Keyser Station longer, if it were needed.

IPL noted that priority destination designation is highly unusual and that no orders have been granted conferring this designation. It was concerned that granting United's application would cause such requests to proliferate.

The Refiners also opposed United's application. They accused United of seeking priority access without paying for it, which would be unfair and discriminatory. Line 7 is a common carrier pipeline and United has proposed to pay the same tolls as all other shippers. The Refiners submitted that the effect of designating Chippawa as a priority destination would be to grant a preference to United over the Ontario market.

United's application was characterized by the Refiners as either premature or academic. The Refiners referenced the capability to expand Line 7 and noted that, whenever Line 7 is in apportionment, there would be spare capacity available on Line 9 and the take-or-pay aspect of the FSA would provide an incentive for the Refiners to share offshore cargoes and otherwise accommodate United's requirements.

In the meantime, the Refiners recommended that the Board give United, IPL and the Refiners an opportunity to address any apportionment problems when they become apparent. The Refiners were confident that, if apportionment were to become a problem for United, the Board could make a reasoned decision at that time based upon fact rather than speculation.

Views of the Board

When the Board provided for priority destinations in the MH-3-85 Decision, it stated that the system for allocation of pipeline capacity should remain as flexible as possible and that the designation of priority destinations should be kept to a minimum. United is the first applicant for a priority destination designation.

The Board is confident that there are sufficient incentives in place to encourage IPL to optimize the use of its system. If problems were to occur, the Board expects parties to use their best efforts to resolve them to their mutual satisfaction. In an era where market-based solutions are preferred to regulatory intervention, the Board is reluctant to impose a regulatory constraint to address a foreseeable, but as yet only speculative, problem.

Nonetheless, the Board recognizes the unique circumstances of United and the potential for significant harm to its operations in the event of apportionment on Line 7. While the Board is not prepared to approve United's application at this time, it encourages United to bring this matter forward if apportionment on Line 7 becomes a problem and United is unable to negotiate a satisfactory solution. The Board has dealt with apportionment expeditiously in the past and sees no reason why it could not do so if a problem were to arise on Line 7.

10.2 Quebec Request

Quebec requested that the Board grant Montreal refineries priority for crude oil shipped on the Portland-Montreal system in order to guarantee security of supply. This request was not only in terms of crude volumes but also in respect of quality.

Montreal refineries currently require 35 000 m^3/d (220,000 b/d) of crude oil to meet Quebec's requirements for petroleum products. Quebec submitted that this will increase to 39 800 m^3/d (250,000 b/d) in the medium term. It anticipates that the planned capacity of the Portland-Montreal system would be sufficient to meet the current and future needs of the Montreal refineries, provided that the Ontario market does not require more than 38 160 m^3/d (240,000 b/d) of crude oil via the reversed Line 9.

However, Quebec noted that the capacity of the Portland-Montreal system may be insufficient if the Montreal refineries require volumes significantly more than 39 800 m^3/d (250,000 b/d), or if demand downstream of the reversed Line 9 is such that deliveries into the Ontario market significantly exceed 38 160 m^3/d (240,000 b/d). If this happens, the effect of dividing up the Portland-Montreal system volumes could result in a shortfall of supply for the Montreal refineries.

In summary, if the Board approves the reversal of Line 9, Quebec requested that a condition be attached requiring that the Refiners conclude an agreement to ensure that Montreal refineries are assured priority destination designation for crude oil shipped on the Portland-Montreal system.

The Refiners reminded the Board that the proper demand volume for the Montreal refiners was 35 000 m^3/d (220 000 b/d), not 39 800 m^3/d (250,000 b/d). Regardless, the Refiners assured the

Board that, as Petro-Canada and Shell are the Montreal refiners, they are in the best position to guarantee themselves an adequate crude oil supply.

Views of the Board

Montreal Pipe Line's facilities are not the subject of this application. This Hearing Panel is not seized with this matter and, therefore, cannot render a decision on Quebec's request. If Quebec wishes such a designation to be made, it should file an application. Before granting such an application, the Board would likely solicit comments from interested persons including the refiners for whom this designation would be made. Therefore, it may be expedient for Quebec to have discussions with those refiners before it files any such application.

Chapter 11

Disposition

The foregoing constitutes our Reasons for Decision in respect of the application heard by the Board in the OH-2-97 proceeding.

The Board approves IPL's application made pursuant to section 58 of the Act for an Order authorizing the construction of pipeline facilities and the exemption of the facilities from the provisions of sections 30, 31 and 33 of the Act. Accordingly, the Board has issued Order XO-J1-34-97, as shown in Appendix II.

R. Priddle
Presiding Member

J.A. Snider
Member

R.D. Revel
Member

Calgary, Alberta
December 1997

Appendix I

List of Issues

The Board has identified, but does not limit itself to, the following issues for discussion in the proceeding:

1. The economic feasibility of the proposed facilities.

2. The need for the proposed reversal.

3. The impact of the proposed reversal on the market and supply for Canadian crude oil.

4. The appropriateness of the proposed tolling methodology.

5. The appropriateness of the proposed method of financing the project.

6. The potentially adverse environmental and socio-economic effects of the proposed facilities, including those factors outlined in section 16 of the *Canadian Environmental Assessment Act*.

7. The safety of the design and operation of the proposed facilities.

8. The adequacy of connecting pipeline capacity to accommodate the project.

9. The appropriate terms and conditions to be included in any approval which may be granted.

10. The circumstances required for re-reversal of Line 9.

11. The effect of the proposed reversal on the competitiveness of the Quebec refining industry.

12. The appropriate rate base for Line 9.

13. The adequacy of Line 7 capacity to satisfy shipper requirements for the movement of crude oil from Sarnia to Westover.

14. The appropriate method of apportionment of Line 7 capacity.

15. The adequacy of existing right-of-way and easement agreements to transport crude oil as applied for by IPL.

16. The application by United Refining Company to designate Chippawa, Ontario as a priority destination during periods when IPL's Line 7 is in apportionment.

Appendix II

ORDER XO-J1-34-97

IN THE MATTER OF the *National Energy Board Act* ("Act") and the regulations made thereunder; and

IN THE MATTER OF an application, pursuant to section 58 of the Act, by Interprovincial Pipe Line Inc. ("IPL"), filed with the Board under File 3400-J001-86.

B E F O R E the Board on 9 December 1997.

WHEREAS the Board has received an application from IPL dated 1 May 1997, respecting the construction of Line 9 Reversal Project facilities at an estimated cost of $88.7 million;

AND WHEREAS pursuant to the *Canadian Environmental Assessment Act* ("CEAA"), the Board has performed an environmental screening of the proposal and has considered the information submitted by IPL and others;

AND WHEREAS the Board has determined, pursuant to paragraph 20(1)(a) of the CEAA, that taking into account the implementation of IPL's proposed mitigative measures and those set out in the attached conditions, the proposal is not likely to cause significant adverse environmental effects;

AND WHEREAS the Board has examined the application and considers it to be in the public interest to grant the relief requested therein;

IT IS ORDERED that the construction of the Line 9 Reversal Project facilities is exempt from the provisions of sections 30, 31 and 33 of the Act, upon the following conditions, unless the Board otherwise directs:

1. IPL shall implement or cause to be implemented all of the policies, practices, recommendations and procedures for the protection of the environment included in or referred to in its Application, in its undertakings made to other regulatory agencies or as otherwise adduced in evidence through the application process.

2. Should there be a requirement to remove excess bedrock by blasting at any work site, IPL shall:

   (a) prior to the commencement of construction, finalize discussions with the Ontario Ministry of Environment and Energy, the Quebec Ministry of Environment and Wildlife and affected landowners regarding water wells which may be affected by blasting, conduct a survey of the location of all water wells within 100 m of the proposed blasting location, and sample the well water for static water level, total coliform, faecal coliform, calcium, magnesium, sodium, iron, hydrogen sulphide, sulphate, conductivity, total dissolved solids, turbidity, colour, total organic compounds, total kjedahl nitrogen, biological oxygen demand, nitrate, nitrite, ammonia and any additional parameters requested by the provincial regulatory body;

(b) during blasting and rock removal operations, monitor the quality and quantity of the water in the water well surveyed in paragraph (a); and

(c) after construction, conduct a survey of the water wells surveyed in paragraph (a) to ensure that there has been no change to the quality and quantity of the water in the wells and report the results of those surveys to the Board.

3. IPL shall file with the Board:

(a) copies of the archaeological studies conducted at the Pickering Line Lowering, Westover Station and Terrebonne Pump Station work sites; and

(b) copies of all correspondence from the Ontario Ministry of Culture, Tourism and Recreation and the Quebec Ministry of Culture and Communications regarding the acceptability of the archaeological studies in paragraph (a).

4. IPL shall, prior to the commencement of construction at the Tank 227 work site at Westover Station, file with the Board copies of all correspondence from the Regional Municipality of Hamilton-Wentworth Environmentally Significant Areas Impact Evaluation Group regarding the acceptability of the Environmental Impact Study prepared for that project.

5. IPL shall provide confirmation that, prior to the commencement of construction of the Sarnia Delivery Line, discussions have been finalized with:

(a) Moore Township regarding authorization to cross township drains; and

(b) the St. Clair River Conservation Authority regarding authorizations pursuant to its *Fill, Construction, Alteration to Waterways Regulations*.

6. IPL shall, prior to the commencement of construction of the pipeline crossings of Marsh Creek on the Sarnia Delivery Line:

(a) file for Board approval the fishery resource assessment and any new mitigative measures resulting from that assessment; and

(b) provide copies to the Board of all correspondence from Ontario Ministry of Natural Resources regarding the acceptability of the fishery resource assessment referred to in paragraph (a).

7. IPL shall, prior to the commencement of construction of the storage tank at Westover Station, provide confirmation that:

(a) discussions have been finalized with the Hamilton Region Conservation Authority and the appropriate permits have been received; and

(b) approval of the seed mixtures to be used in the revegetation of the work site has been received from the Hamilton Region Conservation Authority.

8. IPL shall, prior to the commencement of construction of the storage tank at Westover Station, provide:

   (a) confirmation that a final engineering review of the feasibility of the Environmental Assessment Coordinating Committee's ("EACC") recommendation to construct a flat grassy swale at the outlet of the stormwater retention pond has been completed; and

   (b) a statement of whether IPL proposes to implement EACC's recommendation referred to in paragraph (a).

9. IPL shall, prior to the commencement of hydrostatic testing of the Line 9 Reversal Project facilities:

   (a) provide confirmation that the regulatory agencies have approved the hydrostatic test plans and procedures; and

   (b) file with the Board copies of the plans and procedures discussed in paragraph (a).

10. IPL shall, during the first quarter of operation after start-up, conduct and file with the Board noise emission surveys to confirm that the actual noise emission levels from the following facilities do not exceed the anticipated noise emission levels at the pump station fence line and at the nearest residence:

    (a) Westover Terminal;

    (b) Terrebonne Pump Station;

    (c) Sarnia Terminal;

    (d) Bryanston Pump Station; and

    (e) Keyser Pump Station.

11. IPL shall, pursuant to section 58 of the *Onshore Pipeline Regulations* ("OPR"), file with the Board a post-construction environmental report within six months of the date that the Pickering Line Lowering and the Sarnia Delivery Line are placed in service. The post-construction environmental report shall set out the environmental issues that have arisen up to the date on which the report is filed and shall:

    (a) indicate the issues resolved and those unresolved; and

    (b) describe the measures IPL proposes to take in respect of the unresolved issues.

12. IPL shall, pursuant to section 58 of the OPR, file with the Board, on or before the 31 December following each of the first two complete growing seasons after the post-construction environment report referred to in condition 12 has been filed, a report containing:

(a) a list of the environmental issues indicated as unresolved in the previous post-construction report and any that have arisen since that report was filed; and

(b) a description of the measures IPL proposes to take in respect of any unresolved environmental issues.

13. IPL shall file, at least 14 days prior to the commencement of construction, a detailed construction schedule or schedules identifying major construction activities and shall notify the Board of any substantive modifications to the schedule or schedules as they occur.

14. IPL shall file, prior to the in-service date of the reversed Line 9, an updated Emergency Response Plan to reflect the change in operations as proposed in the Line 9 Reversal Project.

15. Unless the Board directs prior to 31 December 2001, this Order shall expire on 31 December 2001 unless the construction and installation with respect to the additional facilities has commenced by that date.

NATIONAL ENERGY BOARD

M. L. Mantha
Secretary